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Report of the
Auditor General
of Canada
to the House of Commons

1994

VOLUME 1

Chapters 1, 2, 3 and 4
Appendices A to E



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**Auditor General
of Canada**
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Chapters 1, 2, 3 and 4
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In order to better meet clients' needs, we have changed the format for distribution of our 1994 Report. This year's Report comprises 34 chapters that have been bound, by department, into 17 volumes. The Report is also available in a variety of electronic formats. If you wish to obtain another format or other material, the Table of Contents and the order form are found at the end of this volume.

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AUDITOR GENERAL OF CANADA

VÉRIFICATEUR GÉNÉRAL DU CANADA

To The Honourable the Speaker of the House of Commons:

I have the honour to transmit herewith my Report to the House of Commons for the fiscal year ended 31 March 1994, to be laid before the House in accordance with the provisions of section 7(3) of the *Auditor General Act*.

L. Denis Desautels, FCA
Auditor General of Canada

OTTAWA, 22 November 1994

1994 Report of the Auditor General of Canada to the House of Commons

Volume 1 – Table of Contents

Chapter		Page
	Introduction	
1	Matters of Special Importance and Interest	1–3
2	Follow-up of Recommendations in Previous Reports	2–3
3	Other Audit Observations	3–3
4	Background on the Audit Process	4–3
	Appendices	
A.	Auditor General Act	A–1
B.	Financial Administration Act – Extracts from Part X	B–1
C.	Reports of the Standing Committee on Public Accounts to the House of Commons	C–1
D.	Report on the Audit of the President of the Treasury Board's Report to Parliament: Tablings in Parliament: Parent Crown Corporation Annual Reports and Summaries of Corporate Plans and Budgets	D–1
E.	Taking Stock of Special Operating Agencies – A Summary of Conclusions of Joint Public and Private Sector Steering Committee	E–1

**Report of the Auditor General
to the House of Commons
for 1994**

Introduction



Report of the Auditor General to the House of Commons for 1994

Introduction

The principal functions and responsibilities of the Auditor General of Canada are set out in the *Auditor General Act*. My responsibilities in respect to those Crown corporations for which I have been appointed auditor are set out in the *Financial Administration Act*. The Auditor General Act is included as Appendix A to Volume 1 of this report and the relevant sections of the *Financial Administration Act* as Appendix B.

The financial statements of the Government of Canada for the fiscal year ended 31 March 1994, which have been prepared by the Receiver General for Canada in accordance with the provisions of section 64 of the *Financial Administration Act* and appear in Volume I of the Public Accounts of Canada, have been examined by me as required by section 6 of the Auditor General Act.

In compliance with section 7 of the *Auditor General Act*, my report for 1994 is presented herewith.

As auditor of the accounts of Canada, including those relating to the Consolidated Revenue Fund, I conducted such examinations and inquiries as I considered necessary to enable me to report as required by the *Auditor General Act*.

With respect to the matters reported, departments, agencies, and the Privy Council Office provided my Office with the information and explanations required to date, including Cabinet documents.

In this report, I refer to departments by their commonly used names. I recognize that these may not reflect the formal legal names of some departments because legislation establishing their names in law has not yet been passed.

Chapter 1

Matters of Special Importance
and Interest

Table of Contents

	Page
Main Points	1-5
Introduction	1-7
Facing up to a Difficult, Challenging Situation	1-7
Reduced Fiscal Manoeuvrability	1-7
The Tough Choices Are Now	1-9
Areas That Require Ongoing Attention	1-9
Strengthening the Performance of Our Tax System	1-10
Integrity, fairness and equity are the goals	1-10
Revenue Canada has shown that it can be flexible and innovative	1-11
Enforcement activity levels are low	1-11
Parliament can help strengthen the performance of our tax system	1-13
Finding Savings for Canadians	1-14
Opportunities worth exploring	1-14
Managing tens of billions of dollars in real property in a way that recognizes its value	1-15
The Need to Treat a \$7 Billion Annual Investment in Science and Technology as a Strategic National Asset	1-17
Science and technology is a dominant vehicle of economic growth	1-17
The evolving role of government	1-17
Past and current studies consistently advocate a strategic approach	1-17
Problems in the implementation stage	1-18
Future directions	1-18
Intelligent Solutions to Managing Overlapping Federal and Provincial Jurisdictions	1-18
Parallel or overlapping jurisdictions are a fact of life	1-18
Problems have been identified	1-19
Cost-effective and practical administrative solutions are possible	1-20
Update on an Intractable Issue	1-21
The Continuing Imperative of Public Service Renewal	1-21
Parliament needs to know what results are being achieved	1-22
Special Operating Agencies: A Case Study in Administrative Renewal	1-23
Significant Events Affecting the Office	1-23
Responding to Changes in the Auditor General Act	1-24
Three additional reports	1-24
Commissioner of Environment and Sustainable Development	1-24
Conclusion	1-25
Commitment at All Levels to Serving the Public Interest	1-25
Balancing stability and innovation	1-25



Matters of Special Importance and Interest

Main Points

1.1 Facing up to a difficult, challenging situation. The country faces a difficult, challenging situation amid political, economic and social changes that reverberate throughout the world. While Canada remains one of the best places in the world in which to live, Canadians cannot afford to be complacent.

1.2 The tough choices are now. The government is providing more information on debt and the deficit. This information demonstrates the grave consequence of the interest bite — so many of Canadians' tax dollars are going to service the debt, rather than to support needed programs. This reduced financial manoeuvrability is one of the country's major challenges and points to the urgent need for innovation and the re-engineering of government.

1.3 Four areas that require ongoing attention. This chapter identifies four areas where sustained action is required. First, there is a need to strengthen the performance of the tax system. Second, there is a need to find savings for Canadians through better management of federal programs and national assets such as real property. This Report identifies potential opportunities worth exploring, in the hundreds of millions of dollars. Third, the government needs to find a better way to manage a \$7 billion annual investment in science and technology. Fourth, governments must continue to find practical ways to manage parallel federal and provincial jurisdictions.

1.4 Update on an intractable issue. In addition to those four areas, the chapter includes an update on an "intractable issue" in the federal government — public service renewal. The chapter provides a brief summary of the Office's plans to enhance its service to Parliament through three additional reports each year, as well as a response to the proposed establishment of a Commissioner of Environment and Sustainable Development. The chapter concludes by noting that the country faces some tough challenges ahead. I believe Canada is capable of meeting those challenges.

Introduction

Facing up to a Difficult, Challenging Situation

1.5 Canadians hear daily of global events that are often troubling, unforeseen and seemingly impossible to resolve. The political, economic and social changes reverberating throughout the world affect us. It is a disquieting time in the lives of individuals, families, communities and nations. Change is occurring at a rapid pace, and we are often unable to predict the events of tomorrow. We may long for a different environment, a slower rate of change, a more stable world, but those are not the realities we face.

1.6 Nevertheless, Canadians are fortunate: we remain steadfast in the pursuit of our aspirations for prosperity, peace and democratic leadership. In surveys conducted on a global scale by the United Nations and other international agencies, Canada remains one of the top countries in the world in the quality of life it offers its citizens. Around the world, millions of people seeking a better life are anxious to emulate the way Canadians live. World leaders look to Canada for models of social and economic policies to protect and promote the well-being of their citizens. While Canadians enjoy relative peace, prosperity and security, we are increasingly aware that Canada cannot isolate itself from international events.

1.7 Canadians cannot be complacent. Our nation is facing new and challenging situations, within and outside our boundaries, that could affect the quality of life for present and future generations. The economy is undergoing structural changes. Individual Canadians are uncertain about their own future, and the future of their children. Universal entitlements are shadowed by a lack of

financial resources and the need to re-evaluate the allocation of those resources. Citizens wonder whether Canada can continue to provide the same systems of health care, old age income support, unemployment insurance benefits, job creation programs, support for education, social assistance, foreign aid and peacekeeping.

Reduced Fiscal Manoeuvrability

1.8 There are good reasons for Canadians to be concerned. Persistent deficits and growing debt have become a fixture of the financial condition of successive governments for two decades. Public Accounts across Canada reported that, in the fiscal year ended 31 March 1993 (the last year for which we have complete federal and provincial information), the federal, provincial and territorial governments added \$68.3 billion to their combined debt burden: up 12 percent over the previous year. The added debt load pushed the net debt of governments to a record high of \$639.1 billion, or just under \$23,000 per Canadian: an approximately five-fold increase compared to Statistics Canada estimates for a decade ago. The obvious question is, how much debt can Canada afford to carry?

1.9 This is an issue of paramount concern to the country and to the Office. Last year's Report addressed these important issues in Chapter 1 and in Chapter 5, "Information for Parliament — Understanding Deficits and Debt". Our objective was to help Canadians gain an appreciation of the country's financial condition, rather than to point toward specific solutions. The Office made four recommendations:

- **Succinct annual report.** In a single document, such as a succinct annual financial report, the government should

There are good reasons for Canadians to be concerned about persistent deficits and growing debt.

Canada remains one of the top countries in the world in the quality of life it offers its citizens.

report a suggested set of five financial indicators.

- **Forum for discussion.** The federal government should develop an appropriate forum for rational discussion of budget choices.
- **Indicators for “Canada, Inc.”** The government should work with the provinces to develop debt indicators on a consolidated basis.
- **Long-term projections.** The government should provide longer-range projections of anticipated values for key indicators, projecting anticipated fiscal manoeuvrability over 30 to 40 years.

The grave consequence of the interest bite is that so many of Canadians' tax dollars are going to service debt, rather than to support needed programs.

1.10 The Office is pleased that the government has, in fact, taken action on the first two recommendations and announced its intention to explore the third. Specifically, the government included a helpful summary section in the Public Accounts. This fall it published for the first time a succinct annual report. In addition, the Minister of Finance announced his intention to review with the provinces the need for relevant information on debt and deficits. The government has initiated consultations, with a view to establishing a more open budget process.

1.11 These are important steps and I am gratified by the government's actions. However, I remain convinced that there is a need for longer-term projections that extend beyond the traditional five-year horizon. The debt burden keeps growing and the Office believes information over a longer time horizon will help support the tough, long-term choices needed to manage the size of the debt and put us back in a position where interest payments on the debt no longer constrain our manoeuvrability.

1.12 Among the five indicators we wrote about last year, the interest bite

illustrates the squeeze that interest payments cause. In 1968 the interest bite was only 13 percent. By 1994 it had risen to 33 percent. What this means is that, for every dollar the government collected in 1968, 13 cents went to pay interest on debt; today, it is 33 cents. This strain on resources is one of the country's major challenges and limits Canada's ability to deal with pressing national and global issues. The grave consequence of the interest bite is that so many of Canadians' tax dollars are going to service the debt, rather than to support needed programs. These debt servicing costs crowd out spending that could benefit taxpayers.

1.13 The strain of a high interest bite will continue to plague all levels of government as long as the public debt load remains high. The key indicator that reflects the debt load is the ratio of debt to gross domestic product. An increase in this ratio means that the volume of debt is growing faster than the income base the government draws on to generate its revenues. As shown in the government's Annual Financial Report for 1993–94, the legacy of growing government deficits has resulted in federal debt equal to more than 71 percent of the gross domestic product: approximately four times as much as two decades ago.

1.14 Bringing order to Canada's finances means finding ways to increase the growth in the economy while, at the same time, keeping in check both the interest payments on the debt and our expenditures on the regular business of government. Clearly, any economy like Canada's will benefit from growth. But relying exclusively on economic growth does not deal with the underlying structures of government programs that, among other things, led to this fiscal predicament. Compounding the problem is the dilemma that the larger the interest

payments we make on our growing debt, the tighter the control must be on other expenditures.

The Tough Choices Are Now

1.15 This reduced fiscal manoeuvrability is the overriding reality that governments face in allocating resources today. It is also the driving force behind efforts to re-engineer government, such as the program reviews under way in the federal government. As governments face the challenge of serving their constituents with relatively fewer resources and reduced discretionary funds, they must evaluate and redesign the administration and delivery of existing and proposed programs. Globally, governments are trying to find innovative ways to:

- increase the efficiency and effectiveness of public sector administration;
- evaluate and realign priorities;
- increase co-ordination between levels of government, where possible, to avoid unnecessary administrative duplication; and
- promote economic growth by investing in the future, through programs such as research and development incentives, manpower training, and other proactive investments.

1.16 Our federal and provincial governments face these same challenges. Canadians used to be able to say that there were tough choices ahead, but "ahead" is now.

1.17 In light of reduced fiscal manoeuvrability, Canada, like other nations, must "re-engineer" government. We are past the point where incremental improvements and across-the-board percentage cuts are sufficient. The

government must look at its primary goals and objectives when evaluating existing programs and services and other identified needs. This is dramatically different from across-the-board percentage cutbacks. In re-engineering, there is a recognition that a solution may well include the complete elimination of some programs, the complete restructuring of other programs and the introduction of new initiatives. In the current economic context, emphasis must be placed on meeting the essential needs of Canadians in the most innovative, efficient and effective ways. The objective of this Report is to support that process.

Areas That Require Ongoing Attention

1.18 This chapter identifies four areas that I believe require sustained attention. First, there is need to strengthen the performance of the tax system. Second, there is a need to find savings for Canadians through better management of federal programs and national assets such as real property. Third, the government needs to find a better way to manage a \$7 billion annual investment in research and development. Fourth, governments must find practical ways to manage parallel federal and provincial jurisdictions.

1.19 Of the four issues that require sustained attention, I have chosen to emphasize throughout this Report the need to strengthen the performance of the tax system. To increase fiscal manoeuvrability, the government needs to address both the revenue and the expenditure sides of the deficit equation. To ensure a stable source of revenue, Canada needs a strong and productive economy with an equitable portion of that revenue paid to the government through the tax system. A stable source of

Incremental improvements and across-the-board percentage cuts are not sufficient.

Canadians used to be able to say that there were tough choices ahead, but "ahead" is now.

revenue also requires a fair and efficient tax collection process.

Strengthening the Performance of Our Tax System

Integrity, fairness and equity are the goals

1.20 **Honesty and taxpayers' good will are the foundation of a self-assessment tax system.** Canada has chosen such a system for collecting taxes. This means that Canadians are expected to understand the tax laws and comply with them. It is the government's responsibility to assist them in understanding how to meet their tax obligations. Taxpayers are expected to report their income truthfully and to pay their taxes, and they have a right to expect that everyone else does the same. They have a right to expect that those who do not pay their fair share will be detected and dealt with accordingly. Nobody wants to pay someone else's taxes, and no one has respect for people not paying their fair share of taxes. Non-compliance gives the dishonest an unfair advantage over honest taxpayers.

1.21 The success of the tax system depends ultimately on the public's willingness to meet its tax responsibilities through voluntary compliance. This willingness is fostered when government shows respect for the taxpayer. Respecting the taxpayer means much more than treating taxpayers with courtesy and fairness. It means achieving a proper balance between facilitation and enforcement efforts; it means maintaining taxpayers' confidence that their money is well spent, that it is achieving results.

1.22 Previous auditors general have observed that it behooves government to be firm, fair and vigilant, noting that if taxpayers begin to sense that others are

taking advantage of the system, their perception could have an immense negative impact on the ability of future governments to collect taxes.

1.23 A tax system must be backed by appropriate enforcement strategies to facilitate compliance and to penalize those who do not comply. There must also be an effective collection strategy. Two key pillars of the Canadian government's strategy for collecting income taxes are "deduction at source" and "third-party reporting" through, for example, the requirement to deduct income taxes from wages and the reporting on T5 slips of interest paid. These measures allow the government to get much of its revenue up front, and to verify the income reported by taxpayers with the information provided by third parties. Income tax deducted by employers amounted to over 60 percent of personal income taxes collected by the government in 1992–93.

1.24 It is the role of Parliament to ensure that there is well thought out, equitable legislation in place that is consistent with fiscal realities and government objectives. The Government of Canada has chosen to separate the development of tax policy from the administration of the tax system, with the Department of Finance primarily accountable for policy and Revenue Canada accountable for administration. Parliament plays an oversight role, holding the government to account for the overall functioning of the tax system.

1.25 This Office has a statutory requirement to bring to the attention of Parliament any situation where the rules and procedures applied have been insufficient to secure an effective check on the assessment, collection, and proper allocation of revenue. The balance of this section of Chapter 1 summarizes the Office's work over the past five years,

Nobody wants to pay someone else's taxes, and no one has respect for people not paying their fair share of taxes.

Non-compliance gives the dishonest an unfair advantage over honest taxpayers.

concluding that there is a pressing need for closer parliamentary scrutiny of tax policy and administration, to strengthen the performance of our tax system.

Revenue Canada has shown that it can be flexible and innovative

1.26 Until recently, Revenue Canada operated as two departments — Customs and Excise, and Taxation — each with its own Deputy Minister. Today, the Department has one Deputy Minister and is in the process of merging its activities to allow greater integration. Clearly, this is a large and challenging undertaking, and creates a department that handles approximately 30 million tax returns a year, collects gross revenue of more than \$180 billion and has over 40,000 employees.

1.27 Audit work over the past five years has demonstrated that the Department has made progress in improving services to taxpayers.

Processing of tax returns generally is done in a timely manner. A dispute resolution process for settling disagreements between taxpayers and the Department is in place and functions in a fair and equitable way. The Department has undertaken a number of initiatives to deal with weaknesses in the tax system. Chapters in this Report highlight areas that must be dealt with on a priority basis.

1.28 We have serious concerns about the amount of unpaid income tax assessments. As noted in Chapter 29, "Revenue Canada—Collecting Income Tax Debts", in the last decade, the Department's goal to stop or reverse the trend of growth in delinquent income taxes has, for the most part, proved to be unattainable. Accounts receivable from taxpayers for income taxes — at least, those not in dispute — have risen from \$4.2 billion in 1989 to \$6.6 billion today.

What is troubling is that the age of many of these receivables suggests that a significant portion may never be recoverable. According to the Department, about 17 percent, or \$1.1 billion, may never be collected; in the Office's view this figure may be understated.

1.29 These receivables are an important national asset, and leaving them uncollected has a serious impact on the deficit. A one-cent increase in the average amount recovered for each dollar owed would result in an additional cash injection of \$34 million. Clearly, reducing deficits through more effective tax collection is preferable to raising taxes. The Department has a number of initiatives under way to improve tax collection. In my view, enhancements to certain areas of collections, noted in Chapter 29, could generate millions of dollars of additional revenue and lower the cost of collections.

Enforcement activity levels are low

1.30 Recent pronouncements by the Minister of National Revenue and the Minister of Finance say that levels of compliance are deteriorating. The Office's concern is that there may be a growing risk that the tax base is eroding.

1.31 On the topic of the underground economy, the Minister of National Revenue recently noted:

As you are probably aware, estimates vary widely depending on the methodology that is used, from 2.5 or 3 percent of GDP to over 20 percent — or \$20 billion to \$140 billion.

The underground economy and tax evasion is making it difficult for governments to reduce deficits and eventually cut taxes, not to mention its impact on government programs and services.

Taxes receivable are an important national asset, and leaving them uncollected has a serious impact on the deficit.

Audit work over the past five years has demonstrated that Revenue Canada has made progress in improving services to taxpayers.

For the past five years, the Office has been concerned that enforcement activity levels are low.

For the past five years, the Office has been concerned that enforcement activity levels are low. For example, our 1989 chapter on Customs and Excise noted that the reduction of audit resources had resulted in a marked decline in audit coverage over the years. Departmental data have shown record low rates of audit penetration. The 1990 Report chapter on enforcement concluded that coverage had declined to such a low level that it was a cause of concern as to whether enforcement was acting as an effective deterrent to non-compliance. The Office reported in 1992 that competing priorities have affected the development and implementation of GST enforcement activities.

1.32 Audits of GST registrants have resulted in \$2.1 billion of additional assessments. However, there still is cause for serious concern. For example, Chapter 30, "Revenue Canada – GST Audit and Special Investigations", reports that the audit presence in the GST registrant population has declined and the investigative presence has been weak. This is especially worrisome because an assessment or a reassessment for GST must generally be issued within four years after the day on which the taxes become payable. For many registrants, the four-year period is almost over. We also noted that the revenue generated from GST audits was far below projections. Overdue receivables from GST have risen from \$650 million in March 1993 to over a billion dollars today. Non-compliance with GST regulations is a serious matter. When registrants do not remit GST collected from their customers, they are misappropriating funds that belong to the government and are creating a breach of trust.

1.33 Chapter 31 of this Report, "Revenue Canada – Ensuring Fairness of

the Income Tax System", raises similar concerns in the area of special investigations. In the last five years, the Department has planned to refer, on average, 170 cases a year for prosecution. Actual referrals have been approximately 150 per year. These numbers are not based on research to determine the extent to which criminal investigations should be used to combat tax evasion, but on the availability of resources. As well, there has been a 50 percent decline in auditors' referrals of potential tax fraud cases to Special Investigations over the last four years. Chapter 31 also documents the Department's concern about "non-filers", or taxpayers who choose not to participate in the tax system. Chapter 33, "Department of Finance and Revenue Canada – Tax Assistance for Retirement Savings", points out the need to increase the level of audit coverage of registered savings plans, and to implement a program for verification of over \$16 billion a year in annual RRSP contributions.

1.34 The need to manage tax expenditures. In addition to the need for better collection and enforcement strategies, there is a need for better management of tax expenditures. Tax expenditures are instruments to provide relief from the payment of taxes through income exclusions and deductions, tax credits and deferrals. Put in place to promote social or economic purposes, they represent an alternative to direct expenditures as a form of government assistance. However, they are called tax expenditures because the net impact on government finances is similar to that of direct government expenditures. A dollar of revenue intentionally foregone is just as important as a dollar spent. This Office does not express an opinion on whether government support should take the form of tax expenditures or direct expenditures.

Rather, our concern is that both be managed and accounted for adequately.

1.35 In 1986, the Office conducted a study of tax expenditures, which at that time were estimated to be \$28 billion annually. Since then, the amount has increased to \$37 billion. In 1986, the Office expressed serious concern that the Department of Finance was not adequately managing tax expenditure programs. Given their magnitude, the Office expects to see clear statements of their objectives and anticipated results, and evaluations of actual results. There should be periodic monitoring, oversight and, possibly, changes to programs to achieve their objectives. In addition, there should be comprehensive, timely and meaningful disclosure to Parliament of information on tax expenditures.

1.36 Two chapters in this Report suggest that the Department of Finance is not managing tax expenditures with the due care expected in direct expenditure programs. Chapter 32, "Revenue Canada – Income Tax Incentives for Research and Development", reports that the Department of Finance is not adequately monitoring and evaluating tax expenditures on research and development. Chapter 33 on tax assistance for retirement savings concludes that the accountability for costs and results of the substantial tax assistance for retirement savings needs to be improved. In the Office's view, there is an urgent need for the Department of Finance to meet its full responsibilities for the management of tax expenditures.

1.37 For direct expenditure programs, Parliament is routinely provided with estimates of anticipated expenditures, as well as information on objectives and some information on results. In addition, it receives information on direct expenditures from the Public Accounts.

But Parliament does not receive this type of information on tax expenditures. The minimal information it does receive is not sufficient to allow it to exercise a systematic oversight of "spending" through the tax system.

Parliament can help strengthen the performance of our tax system

1.38 Currently, two standing committees of the House of Commons deal with revenue issues — the Public Accounts Committee and the Standing Committee on Finance. As well, other committees are involved in revenue issues when tax expenditures touch on their area of expertise. For example, the tax incentives for research and development would fall within the purview of the House of Commons Standing Committee on Industry.

1.39 In the area of tax compliance, parliamentary committees may wish to review whether the tax base is being maintained, and to review the extent to which Revenue Canada has implemented an effective compliance strategy for both the taxed and the untaxed economy. Parliamentary oversight would be easier if the Department were able to advise Parliament about the results of its enforcement activities, including the impact on compliance. The results of the Department's efforts are reported in its Part III of the Estimates only in terms of additional taxes, penalties and interest reassessed.

1.40 In the area of tax expenditures, there is a need for parliamentary committees to be provided with information annually on the costs of tax expenditure programs and their expected results, so that they can get a complete picture of the government's involvement in a particular policy area. There is also a need to provide periodic information on the results these tax expenditures are

A dollar of revenue intentionally foregone is just as important as a dollar spent.

Tax expenditures are not being managed with the due care expected in direct expenditure programs.

The tax base is one of the most important assets of a civilized society. All stakeholders — parliamentarians, governments and Canadians — must make every effort to preserve it.

Reducing government expenditures has begun, but much more needs to be done.

achieving, in order to hold the government to account for its spending through the tax system. This is particularly important in areas where tax expenditures are used in conjunction with direct expenditures to achieve policy objectives. Last year, Chapter 1 pointed out the need for strategic evaluations that deal with sectoral issues. Such evaluations should include related tax expenditures.

1.41 The success of our tax system depends on the confidence and co-operation of taxpayers. This confidence is based on a perception of fairness in the system, the achievement of value for taxpayers' money and the integrity of our leaders. Parliament has a key role to play in upholding these principles and, by doing so, will help to preserve a vital national asset, our tax base. In November 1993 the Minister of Finance reported:

The underground economy is not all smugglers. It is hundreds of thousands of otherwise honest people who have withdrawn their consent to be governed, who have lost faith in government. That is why over the next four years, one of the most important things we can do is to re-establish the credibility of government and, to do that, we must restore control over the nation's finances.

1.42 In my view, we cannot overestimate the importance of protecting the integrity of the tax base, which provides the essential revenues to fund government services. The tax base is one of the most valuable assets of a civilized society. All stakeholders — parliamentarians, governments and the Canadian public — must make every effort to preserve it. The Office will continue to monitor the performance of our tax system and report back to Parliament annually.

Finding Savings for Canadians

Opportunities worth exploring

1.43 The Office is committed to making a difference for the Canadian people by promoting, in all our work for Parliament, answerable, honest and productive government. This section of Chapter 1 describes some opportunities for savings that the Office believes are worth exploring. The Office recognizes that, at this particular juncture, the government and public servants are also looking for ways to find savings for Canadians. On balance, our work suggests that reducing government expenditures has begun, but much more needs to be done. The Public Accounts Committee and other concerned parliamentary committees may wish to explore some of these opportunities in greater detail with the departments and agencies accountable for managing the expenditures.

1.44 These examples are drawn from the current audits where the Office was able to quantify savings. Because the Office audits major departments on a cyclical basis, the list is not exhaustive. In the future, the Office will report examples from other programs and departments.

1.45 Opportunities for more productive spending. In some instances, departments have not moved quickly enough to take advantage of known opportunities to reduce costs. We report in Chapter 25, "National Defence — Information Technology", that the Department did not have an adequate way to compare the importance of its information technology projects, or to weigh their cost-reduction benefits against other priorities. As a result, the Department has not taken advantage of at least \$700 million in possible savings.

The issue here is one of productive spending. While the savings might not have resulted in a reduction in the deficit, the funds could have been better directed to meet other military needs.

1.46 Opportunities for cost recovery.

There are also opportunities for the government to save tax dollars through recovering program costs. The Office estimates that fully applying the federal government's cost-recovery policy to food inspection could recover more than \$200 million annually. This is described in more detail in Chapter 13, "Federal Management of the Food Safety System". As reported in Chapter 20, "Environment Canada — Ice Services", the Department of the Environment is seeking to increase revenues from cost-recovery of ice information services.

1.47 An opportunity to save even more. Chapter 25 reports that the Department of National Defence has already reduced telecommunications costs by about \$10 million a year, and plans to generate more savings by eliminating one of its two major data centres. The Department recognizes that additional savings could be achieved, but adequate plans to do so are not in place. We estimate the potential additional savings to be more than \$30 million each year.

1.48 As noted in the next section, tens of millions of dollars in costs could also be avoided by improving the government-wide management of federal real property.

Managing tens of billions of dollars in real property in a way that recognizes its value

1.49 There is no definitive estimate of the value of the government's extensive real property holdings in land, buildings, laboratories, office accommodation,

airports, military bases, etc. However, 1985 estimates ranged from \$40 billion to \$60 billion. The government's real property holdings not only are a significant national asset, but also require large annual expenditures on management, maintenance and repair. Chapter 12, "Aspects of Federal Real Property Management", and other chapters in this Report describe the management of approximately two thirds of the government's real property portfolio.

1.50 Since 1986, the government has undertaken major initiatives to improve its real property management practices, including important structural changes. These include the creation of the Bureau of Real Property and Materiel in the Treasury Board Secretariat; the transfer of special-purpose buildings, such as laboratories, to user departments; and changes to the legal and regulatory framework for the management of real property. However, whether the changes have resulted in improved real property management across the government has yet to be demonstrated.

1.51 Improvements needed in management tools and practices. Some management tools considered in the private sector to be essential to making informed decisions on managing real property are not in place in the government. One such tool is a management information system that provides current and comparable data on real property holdings to support policy decisions on acquisition, divestiture and maintenance.

1.52 Moreover, the government needs to improve management practices. An operational review conducted for Public Works and Government Services Canada by external consultants estimates that \$12 million in annual costs could be avoided through the reduction and

Tens of millions of dollars in costs could be avoided by improving the government-wide management of federal real property.

One key issue in real property management is making decisions on the size of the portfolio.

The Office's work demonstrates that departments can achieve significant savings by better compliance with existing policies.

Because of the long-term, inflexible nature of real property, strategies must transcend short-term government or political objectives.

simplification of that Department's administrative practices in the management of federal real property. And Chapter 27, "National Defence — Infrastructure Management" reports that National Defence has the opportunity to make significant improvements to its management of infrastructure.

1.53 The Office's work demonstrates that departments can achieve significant savings by better compliance with existing policies. Chapter 34, "Public Works and Government Services Canada — Management and Operation of Crown-owned Office Buildings", reports a government estimate that \$100 million in annual costs could be avoided through the adoption of energy conservation measures in federally owned buildings. The Department of the Environment estimates that \$30 million in annual costs could be avoided through improving the efficiency of water use in all federal facilities. Achieving these savings would require significant initial capital investments by the private sector firms contracted to do the work, who would then be repaid from the savings.

1.54 There is a need for the government to review the existing policy and management frameworks. Such a review would assess whether the roles assigned to the custodial departments and the central agencies ensure that departments are able and encouraged to exercise sound management of these costly resources. A framework that removes some constraints and provides better incentives would encourage departments to economize in their use of real property. There is also an overriding need for central agencies and custodial departments to work together to produce a long-term strategy.

1.55 Long-term implications of decisions on real property. One key

issue in real property management is making decisions on the size of the portfolio. These decisions have long-term implications and are critical to the reduction and control of future expenditures. Once a decision has been made to acquire or retain real property, the costs to hold, operate and maintain it are relatively fixed. Decisions to dispose of real property such as federal buildings in small towns, or the closing down of military bases, are especially difficult for the government and the people affected by these decisions. The government currently is facing a number of such tough decisions in an era of government restructuring and downsizing. Chapter 26, "National Defence — Infrastructure Reductions", illustrates the complexities of this issue. Decisions to close military bases should be consultative and open and include the affected communities.

1.56 The real issue is cutting future losses rather than "saving money". The need to make decisions on the retention, disposal and maintenance of the government's inventory of real property is especially critical at a time of rising concern about the federal deficit. In these circumstances, there is an increased risk that short-term decisions will be made to minimize the effect on the annual deficit and will increase total government expenditures over the long term. These include decisions to use operating leases instead of Crown purchase or construction, and to use lease-purchase arrangements or other "off balance sheet" arrangements.

1.57 In exercising its oversight function, Parliament may wish to ensure that the long-term interests of Canadians are not sacrificed to minimize the deficit in the short term. Because of the long-term, inflexible nature of real property, strategies must transcend

short-term government or political objectives. The Standing Committee on Operations may wish to explore opportunities to be realized in real property management.

The Need to Treat a \$7 Billion Annual Investment in Science and Technology as a Strategic National Asset

Science and technology is a dominant vehicle of economic growth

1.58 The global economy is increasingly driven by knowledge-based industries. According to the Secretariat for Science and Technology Review, in constant-dollar terms, global production by high-technology industries more than doubled between 1980 and 1990. This compares with a 23 percent increase in other manufacturing industries. Research and development is a vital tool in the leap from a resource-based economy to one based on meeting consumer needs for services and products. It is an integral part of any nation's global competitiveness.

The evolving role of government

1.59 Canada has recognized these developments. The federal government participates in science and technology through an investment of \$7 billion per year: \$6 billion in program support and \$1 billion in tax incentives. The \$6 billion dollars represents over 10 percent of the government's total non-statutory spending.

1.60 The federal government is a major player in research and development in Canada. Partners in research and development include universities, the provinces and the private sector. In 1993-94 the federal government spent

\$1.7 billion on research and development in over 150 laboratories.

1.61 The federal contributions to research and development are used for three basic purposes: creating wealth, managing risk and improving quality of life, and advancing knowledge through basic research. Wealth creation involves, for example, the development of new technologies to increase the competitiveness of the Canadian economy. Managing risk and improving quality of life includes research to support regulation in environmental and health areas, for example, to ensure the safety of foods and drugs, to set standards for toxins and to assess and manage risks such as nuclear radiation. Advancement of knowledge involves basic scientific research.

Past and current studies consistently advocate a strategic approach

1.62 As described in detail in Chapter 9, "Science and Technology – Overall Management of Federal Science and Technology Activities", during the past three decades the government and the scientific community have recognized the need to continually improve federal support for research and development. In 1963 the Royal Commission on Government Organization (Glassco Commission) noted that the science policy advisory apparatus had been ineffective and had failed to function as intended. In the 1970s, the Senate Special Committee on Science Policy (the Lamontagne Committee) recommended that a central co-ordinating body be established and that investment in scientific research follow the pattern of national priorities.

1.63 Earlier this year, the National Advisory Board on Science and Technology recommended that the government manage its investment in science and technology as a distinct strategic asset. It appeared to the Board

It appeared to the Board that budget decisions have reflected historical incrementalism rather than strategic management of a national asset.

Time is of the essence.

that budget decisions have reflected historical incrementalism rather than strategic management of a national asset. It also appeared to the Board that the government lacks the capability to allocate science and technology resources in a way that reflects broad government objectives.

Problems in the implementation stage

1.64 With all the efforts in the last 30 years to provide some overall direction and to streamline the management of science and technology activities, the Office believes it would be reasonable to expect the government to have a clear sense of what it is trying to achieve through those activities and to direct its efforts in a way that would yield maximum return. Unfortunately, as Chapter 9 reports, that is not the case.

1.65 The present allocation of funds among various fields is more incidental than the result of a well-formulated strategy. The lack of focus at the government-wide level contributes to a lack of focus in departments and agencies. The absence of government-wide guidelines and criteria has contributed to departments becoming involved in activities that we believe they should question. Moreover, the expected results of science and technology programs are defined in such general terms that they do not create a sense of urgency among the performers of research and development.

Future directions

1.66 Time is of the essence. The Office's work suggests that an effective, more focussed, national science and technology strategy is critical to survival and growth in today's high-technology economic environment. In the 1994 Budget, the government announced a major science and technology review.

Parliamentarians could play an important role in ensuring that a Canadian strategy emerges from the proposals to be tabled by the Minister of Industry. Parliamentary committees may wish to ensure that this time there is a science and technology strategy that is results-oriented, with clear priorities and the coherent direction that is necessary to achieve a concerted effort across the government.

Intelligent Solutions to Managing Overlapping Federal and Provincial Jurisdictions

Parallel or overlapping jurisdictions are a fact of life

1.67 Reduced fiscal manoeuvrability at all levels of government has focussed attention on the need to manage overlapping jurisdictions, whether federal, provincial, territorial, regional or municipal. Across the country there is a growing recognition that taxpayers want the most efficient and effective service, no matter which level of government delivers that service.

1.68 The *Constitution Act* divides powers between the federal and provincial governments in Canada. Following the Second World War, both levels of government grew in size and complexity. New policy areas emerged, such as the environment, and entanglement of jurisdictions has developed in almost all areas. Chapter 6, "Study of Key Federal Social Programs", illustrates the current extent of that entanglement in the social programs Canadians receive from governments.

1.69 It would be naive to suggest that overlapping jurisdictions can be avoided in a modern federal state. In my opinion, it is neither feasible nor desirable to eliminate all overlap among different levels of government. The scale and

complexity of modern governance no longer permit a clear separation of powers. Moreover, overlap does not necessarily mean waste or duplication. In fact, the involvement of two or more levels of government can provide checks and balances and a broader consensus in policy formulation. Public safety is an example of the co-operative involvement of federal, provincial, territorial, regional and municipal levels of government.

1.70 However, reduced fiscal manoeuvrability, among other factors, requires effort to avoid overlap that results in unnecessary administrative costs and an undue regulatory burden on the private sector and other clients. In auditing areas of overlapping jurisdiction, the Office expects that bureaucrats will manage those areas intelligently, ensuring that the public interest is paramount and that inefficiencies are corrected.

Problems have been identified

1.71 Over the last two decades, a number of studies have documented the need for improvement in managing federal-provincial programs. As early as 1937, the Rowell-Sirois Commission was directed in its terms of reference to examine whether "government expenditures are increased by overlapping and duplication of services as between the Dominion and provincial governments in certain fields of activity." More recently, the 1978 Federal-Provincial Review and the 1984 Task Force on Program Review looked for ways to streamline programs.

1.72 In the course of our audits of such issues as environmental protection, food safety and the handling of radioactive materials, the Office has encountered cases of overlap. We have made some initial observations based on these cases. We have commented on unclear accountability between federal

and provincial governments, lack of clarity in roles, overlapping regulations, inadequate information-sharing between levels of governments, and the need to increase co-operation in delivering related programs. For example, in 1993, Chapter 26 – "Pulp and Paper Regulations" reported that, as federal pulp and paper regulations were being introduced, four provinces — Quebec, Ontario, Alberta and British Columbia — were proposing similar or more stringent regulations. Industry and the provinces asked for one administration and inspection system to reduce the cost to industry of regulatory compliance.

1.73 In this Report, two chapters in particular focus on overlapping jurisdictions in the area of public safety. Chapter 13, "Federal Management of the Food Safety System", illustrates some initial progress in managing overlapping authorities, as well as some real challenges that lie ahead. Inspections of food-processing establishments are conducted by both the federal and provincial governments, under their respective jurisdictions and statutes. Federal-provincial agreements have been signed to reduce both gaps and duplications in the inspection of some plants. The governments agree, however, that greater efficiencies are possible. Progress has been limited by differences in the food safety standards of federal and provincial governments. The audit outlines the potential advantages of implementing the Canadian Food Inspection System, a proposed re-engineered system to streamline inspection activities and harmonize food safety standards.

1.74 Chapter 15, "Atomic Energy Control Board – Canada's Nuclear Regulator", illustrates the complex joint jurisdiction of federal and provincial

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The long-standing partnership between the RCMP and provinces and municipalities has stood the test of time and has conferred significant benefits on all parties involved.

The challenge for all parties is to rationalize arrangements in order to achieve efficiency and co-operation while, at the same time, continuing to protect the public safety.

governments over the transportation of dangerous goods, uranium mining, the environment and occupational health and safety. The co-operative efforts of both levels of government have contributed to public safety and the avoidance of a major nuclear disaster. In this joint regulatory process, the Atomic Energy Control Board acts as the lead agency, while other stakeholders contribute expertise in their respective areas. Although the Atomic Energy Control Board attempts to avoid them, there still are areas of regulatory duplication and overlap, and gaps in regulatory protection. The Office believes that the challenge for all parties is to rationalize arrangements in order to achieve efficiency and co-operation while, at the same time, continuing to protect the public safety.

Cost-effective and practical administrative solutions are possible

1.75 In the areas of overlapping jurisdiction that have come to the attention of the Office, equivalency agreements and administrative delegation through agreements appear to provide models that help to manage complex, multijurisdictional programs. Under an equivalency agreement, for example, a federal minister and his or her provincial counterpart agree that the province has legislation in force that is equivalent to federal legislation. In such a case, the federal legislation would not apply in that province. In the administrative delegation protocol, program functions that are the constitutional responsibility of one level of government are delegated to another level with parallel or similar responsibilities to create a single system rather than two parallel systems. Delegation can flow from the federal to the provincial level or from the provincial to the federal level. One level of government is delegated responsibility

and authority to work on behalf of the other. There are agreed standards, clear accountability contracts and increased efficiency for stakeholders — clients and taxpayers alike.

1.76 An excellent example of this protocol is illustrated by a chapter in the 1992 Report, "Provincial and Municipal Policing". Through contractual arrangements developed over several decades, the RCMP has served as the provincial, territorial and municipal police in eight provinces (all but Ontario and Quebec), the two territories and 191 municipalities. Under the contractual arrangements, the federal government charges the provinces and municipalities for RCMP services. This long-standing partnership has stood the test of time and has conferred significant benefits on all parties involved.

1.77 The cases the Office has reviewed illustrate that tangible, practical administrative solutions can usually be found within the existing constitutional framework. It would be naive to assume, in the real world, that there will not be conflict within and among levels of government; increasing the co-operation and commitment of all partners will be a complex and challenging problem. However, I believe that the reduced fiscal manoeuvrability at all levels of government will keep the pressure on to find practical administrative solutions that make sense for the taxpayers of Canada.

1.78 Government has made a commitment to reduce unnecessary overlap and duplication wherever possible in federal-provincial programs. The Minister for Intergovernmental Affairs has been given a mandate to reduce duplication and overlap between the two levels of government. In July 1994, the First Ministers began the process of signing agreements to negotiate

harmonized regulations covering such areas as environmental assessment and food inspection. The Office supports the government's commitment and believes that joint delivery of federal-provincial programs can indeed be made to work efficiently, with the co-operation and commitment of all partners. The Office will explore ways to forge links with our provincial counterparts to enable concurrent auditing of the management of overlapping federal and provincial programs.

Update on an Intractable Issue

1.79 In Chapter 1 of last year's Report, I listed six intractable issues that were complex, that challenged the status quo and, in many cases, that constrained the role of Parliament in exercising its traditional duty to oversee the public purse. The action needed to address those issues included:

- **interdepartmental co-operation** — encouraging departments to co-operate in delivering services that cut across departmental boundaries (a continuing concern to be revisited in future reports);
- **public service reform** — effecting administrative and public service reform (a continuing concern, as described later);
- **involving parliamentarians in the budgetary process** — reconciling parliamentary conventions with the need to involve Parliament in the budgetary process (some government action initiated);
- **stewardship reporting** — promoting stewardship reporting by government departments to Parliament (a continuing concern, as discussed in Chapter 7, "Departmental Reporting of Sectoral Activities");

- **comptrollership** — implementing comptrollership in government (a continuing concern); and
- **information on results** — ensuring that program evaluations report on the results of significant expenditures (a continuing concern to be revisited in future reports).

Every year in Chapter 1, the Office will be reporting on the government's progress toward resolving those issues. This year Chapter 1 discusses public service renewal.

The Continuing Imperative of Public Service Renewal

1.80 Every year for the past three years, I have stressed the need to achieve public service renewal. This remains a matter of the utmost importance.

1.81 A major public service renewal initiative began five years ago as Public Service 2000 ("PS 2000"). Significantly, studies carried out by two parliamentary committees demonstrated widespread agreement on the need for fundamental change in the management of the public service. They also showed strong support for the objectives and broad thrusts of the initiative.

1.82 Today, under a new government, PS 2000 has been subsumed into a broader renewal exercise, one sometimes referred to as "government renewal". This renewal initiative encompasses a series of policy reviews dealing with such areas as social security, science and technology, defence, foreign policy and international development assistance, to name a few. It also includes a systematic examination of all federal programs, agencies and activities to ensure that the government's diminished resources are directed to the highest-priority requirements. As well, government renewal encompasses

Joint delivery of federal-provincial programs can indeed be made to work efficiently, with the co-operation and commitment of all partners.

I believe that Canadians could greatly benefit from the kinds of changes that might emerge from this broad government renewal initiative.

We have a long history of reform attempts that did not achieve their goals; a breakthrough is required!

initiatives aimed at improving the efficiency of the federal system through agreements between the federal and the provincial and territorial governments to better align roles and responsibilities in the delivery of programs and services.

1.83 I believe that Canadians could benefit greatly from the kinds of changes that might emerge from this broad government renewal initiative. More affordable and cost-effective programs, and delivery systems that maximize value for money for the Canadian taxpayer — that eliminate duplication and harmonize federal and provincial efforts whenever possible — are essential to the resolution of the fiscal difficulties Canadians face, and to enhancing the credibility of government.

1.84 Equally important in these difficult times is the need to follow through on inculcating the values and management principles that are the essence of public service renewal and on resolving problems that PS 2000 sought to address — to modernize public service management systems and practices, to increase management flexibility, reduce overheads and enhance the quality and adaptability of public servants, and “to achieve a results- and client-oriented culture”.

1.85 As I noted last year, real progress toward these goals — goals that the government continues to endorse — can best be achieved by integrating public service renewal efforts with the government’s broader policy and fiscal agenda and its vision of the future role of the public service.

Parliament needs to know what results are being achieved

1.86 In 1992, and again in 1993, my Report emphasized the importance of an

annual report on the progress of public service renewal. This reflected my view that there is a need for periodic assessments to determine if specific reform objectives are being met, to identify lessons learned and to point to new directions. Furthermore, Parliament requires a systematic way of assessing whether results are being achieved, so as to influence the nature, direction and pace of change and ensure that Canadians are benefiting.

1.87 The White Paper on public service renewal, issued in December 1990, called for an annual report by the Clerk of the Privy Council (Head of the Public Service) to the Prime Minister “... on the state of the public service in general and, for the next five years, on the implementation of Public Service 2000 in particular.” In the interim, the *Public Service Reform Act* was passed. It requires an annual report on the state of the public service, and that the report be tabled in Parliament. However, the Act does not specifically require reporting on the progress of the renewal initiative.

1.88 When the first report by the Head of the Public Service was presented, I indicated that to be useful to Parliament, future reports would need to evolve from focussing on activities to reporting on results. Although the second report, issued in the spring of 1994, does deal with the progress of renewal, in my opinion it is disappointing in the limited extent to which it systematically examines the results that have been achieved and the impact of this major renewal initiative.

1.89 We have a long history of reform attempts that did not achieve their goals; a breakthrough is required! Strong central leadership — political and bureaucratic — will be required. Furthermore, a regular and timely report is essential — a report that is based on a more systematic

assessment of progress toward the government's public service renewal aims, and that reflects results of importance to parliamentarians and to Canadians more generally. Such a report would facilitate productive debate on issues and concerns, and thereby enhance the prospects for successful renewal.

1.90 In my view, the Report to the Prime Minister by the Head of the Public Service needs to better reflect the latter's stewardship responsibility for maintaining and improving the health and effective performance of the public service. It needs to meet the test of providing the information necessary to permit Parliament to fulfil its related oversight responsibilities.

Special Operating Agencies: A Case Study in Administrative Renewal

1.91 First announced in 1989, special operating agencies (SOAs) explore a different way to organize government, in which tailor-made organizational agreements for individual agencies are intended to:

- free their managers from government-wide rules that unnecessarily constrain productive management;
- allow them to develop a different culture and approach to conducting the government's business; and
- encourage better results that cost less.

1.92 In early 1993, the Secretary of the Treasury Board and I agreed that it was time to take stock of the SOA initiative. We agreed to set up a joint public and private sector steering group to direct a co-operative study, directly involving officials responsible for the initiative and staff from my Office. In

May 1994, the steering group agreed to the conclusions and recommendations reproduced as Appendix E to this Report. Its full report was transmitted formally to the Secretary of the Treasury Board and to me in August 1994.

1.93 The steering group concluded that special operating agencies could contribute to better, less costly government if its seven-point framework of recommendations were adopted.

1.94 I find the results of special operating agencies disappointing to date. Despite early enthusiasm and increased focus on service, the government is not in a position to show sustainable benefits for the taxpayer. The special operating agency seems too weak in its current form to make a lasting difference. I believe the challenge is to use past experiences to improve future performance. The steering group's recommendations are comprehensive and constructive. It will take considerable political will to have them implemented as a package; support from other stakeholders, including Parliament, is essential. As in other aspects of renewal, the nature and extent of parliamentary interest, criticism and support will matter greatly to the outcome.

Significant Events Affecting the Office

1.95 The Office itself is not exempt from innovation and change. Two events have occurred in the last year that will have a significant, positive impact on the work of the Office and the service it provides to Parliament. The first event was a change to the *Auditor General Act* that will allow the Office to publish three additional reports each year. The second event is a proposal to create a Commissioner of the Environment and Sustainable Development.

I appreciate this vote of confidence in the Office and I am committed to using it to maximize our support of the House.

Responding to Changes in the Auditor General Act

Three additional reports

1.96 On 23 June 1994, Bill C-207 to amend the *Auditor General Act* received royal assent and ushered in a new era for the Office. Under the terms of the amendment, the Office will continue to publish an annual report before the year's end but will now be able to publish up to three additional reports every year.

1.97 For some years now, the Office has been concerned that publishing only one report each year did not provide Parliament with support that was as timely as possible. That view was shared by several parliamentarians, including MP Jean-Robert Gauthier, who introduced Bill C-207. As former Chair of the Public Accounts Committee, Mr. Gauthier was very much aware that periodic reporting could significantly increase our service to the House. Rather than one annual Report of approximately 30 chapters and 600 pages, three or four reports of approximately eight chapters each will enable Parliament, ministers and public servants more readily to analyze, integrate and implement the recommendations of the Office.

1.98 I am convinced that more timely and less voluminous reports, tabled three or four times a year, will greatly increase the effectiveness of our support to Parliament. Now that the *Auditor General Act* gives the Office the discretion to publish the results of our audits up to four times a year, I have promised the Public Accounts Committee that we will adopt a publication schedule that will take into account the parliamentary calendar and the views of MPs. Once the Office has completed its consultations, it will indicate in the annual Report the dates on which it intends to publish the additional

reports in the year ahead. Of course there will be occasions when unforeseen developments will require modifications in that schedule.

1.99 I am very appreciative of this vote of confidence in the Office, and I am committed to using it to maximize our support of the House.

Commissioner of Environment and Sustainable Development

1.100 In May 1994, the Standing Committee on Environment and Sustainable Development recommended the establishment of a Commissioner of Environment and Sustainable Development. The recommended functions of the Commissioner are quite broad. One of the most significant roles would be the independent evaluation of all federal policies, laws, regulations, programs and guidelines to assess their compatibility with the concept of sustainable development. The Committee recommended that the Commissioner report to Parliament at least annually.

1.101 In addressing the Standing Committee during its proceedings in March 1994, I emphasized that the Office will ensure that it makes a positive contribution, through its audits, to the protection and improvement of the environment. I also explained to the Committee, in anticipation of any suggestions to that effect, that I believe responsibility for such matters as policy review and arbitration of environmental disputes could jeopardize the Office's traditional independence, objectivity and credibility. In Canada, as in many other countries, it is generally accepted that legislative auditors should avoid commenting on the merits of policy. Other witnesses appearing before the Committee also supported the separation of program policy review from audit. The

Committee recognized the separate roles and affirmed the importance of the positive role played by the Office. It concluded that the *Auditor General Act* should be amended to explicitly mandate the audit of issues related to the environment and sustainable development.

1.102 Insofar as our resource base will allow, the Office will continue to audit environmental and sustainable development issues. We will continue to provide Parliament with information on the results of our audit work to assist it in holding the government to account for its stewardship responsibilities for the environment, on behalf of all Canadians.

Conclusion

Commitment at All Levels to Serving the Public Interest

1.103 When the Office audits departments critically, there is an underlying purpose. Governments are often very large, complex organisms, by any standard. Many opportunities exist for things to go wrong, for breakdowns, problems, failures and malfunctions. Increasingly rapid changes in society, new technologies, new cultural norms and expectations may lead to obsolescence, gaps or duplications in government services. In short, governments will always have problems and areas that need attention.

1.104 One of our purposes is to identify those problems with a view to getting them corrected before they become too costly. Most of these problems are curable, although some have proved to be intractable. The Office goes further: it makes recommendations, pointing out the direction in which improvements might be made. If a patient is to get better, the doctor must not remain silent. Many

problems noted by the Office have been corrected in the past, but we have to keep working on the outstanding ones.

1.105 A thread running through this chapter and throughout the whole Report is the need to obtain full commitment at all levels within and between governments for innovations designed to make government work better. Full commitment is the essential ingredient that will help us to balance stability and innovation and allow us to maintain the essence of our national institutions.

Balancing stability and innovation

1.106 It is clear that Canada must strive to balance the need for stability and predictability with the forces of change and adaptation. National and global realities force us to consider what is affordable and what is sustainable; change is inevitable. There is a need to manage change, to act fairly and equitably and to consider the diverse needs of our population. And it is the role of Parliament to guide deliberate change, supported by rigorous analysis of results and relevant costs in the long term as well as the short term.

1.107 Governments must recognize social, economic and environmental changes; they must address issues such as job creation, health care for an ageing population, initiatives to maintain and enhance national productivity, the transition to a knowledge-based economy, preservation of our natural heritage and the impact of any one program on others. I recognize that this is a long, tough list. But I believe Canada has the capability to meet tough challenges. We have done it before; we can do it again. Canada can remain one of the best places in the world in which to live.

1.108 In May 1994, the United Nations Development Program ranked Canada the

The Office will continue to audit environmental and sustainable development issues.

Governments will always have problems and areas that need attention.

This is a long, tough list, but I believe Canada has the capability to meet tough challenges. We have done it before; we can do it again.

best place in the world to live in terms of “human development”. Canada was compared to 173 countries on the basis of average income, life expectancy and educational attainment. I believe that our national institutions play an important role in achieving this quality of life. The Office is committed to helping Canadians maintain the essence of these institutions. It is committed to making a difference for the Canadian people by promoting, in all

our work for Parliament, answerable, honest and productive government.

1.109 I feel it is important that we not be naive in sizing up the challenges facing us. But it is not naive to hold to a vision of Canada’s national institutions — a vision arising not only from the collective experience and commitment of Parliament, the government and public servants, but also from the hopes and dreams of Canadians, young and old alike.

Chapter 2

Follow-up of Recommendations in Previous Reports

The follow-up work was conducted in accordance with the legislative mandate, policies and practices of the Office of the Auditor General. These policies and practices embrace the standards recommended by the Public Sector Accounting and Auditing Board (PSAAB) of the Canadian Institute of Chartered Accountants.

Table of Contents

	Page
Main Points	2-5
Introduction	2-7
Information Security Audit — 1990, Chapter 9	2-7
Payments to Employees Under the Work Force Adjustment Directive — 1992, Chapter 7	2-9
Search and Rescue — 1992, Chapter 8	2-13
Loans to Sovereign States — 1992, Chapter 10	2-15
Canadian International Development Agency and the Regional Development Banks — 1992, Chapter 11	2-19
Department of Finance — Participation in the Bretton Woods Institutions and in the European Bank for Reconstruction and Development — 1992, Chapter 12	2-23
Department of Finance — Loan Guarantees — 1992, Chapter 13	2-27
Department of Energy, Mines and Resources — Energy Megaprojects — 1992, Chapter 14	2-28
Department of Indian Affairs and Northern Development — Indian Forest Management — The Manitoba Northern Flood Agreement — 1992, Chapter 15	2-32
Department of National Defence — 1992, Chapters 16, 17 and 18	2-35
Major Capital Projects — Industrial Development Initiatives — 1992, Chapter 16	2-35
Major Capital Projects — Project Initiation and Implementation — 1992, Chapter 17	2-37
The Canadian Forces Reserves — 1992, Chapter 18	2-38
Department of National Revenue — Customs and Excise — Special Import Measures Act — 1992, Chapter 19	2-43
Department of National Revenue — Customs and Excise — Goods and Services Tax: Registration and Related Sub-Activities — 1992, Chapter 20	2-45
Royal Canadian Mounted Police — Provincial and Municipal Policing — 1992, Chapter 22	2-47
Royal Canadian Mounted Police — Human Resource Management — 1992, Chapter 23	2-48
Federal Emergency Preparedness — 1987, Chapter 15, 1989, Chapter 27 and 1992, Chapter 24	2-49

Table of Contents (cont'd)

	Page
Public Works and Government Services Canada: Procurement and Accounting Services — 1987, Chapter 11, 1988, Chapter 16, 1989, Chapter 21, and 1991, Chapters 18 and 19	2-50
Exhibits	
2.1 Government of Canada Consolidated Sovereign Loan Exposure	2-16
2.2 Aggregated Sovereign Loan Exposure (1), by Country (Consolidated EDC and CWB and Government of Canada)	2-17
2.3 Recommendations Outstanding	2-36



Follow-up of Recommendations in Previous Reports

Main Points

2.1 Departments are taking action to correct reported deficiencies, but progress is slow in some areas.

2.2 Information Security Audit — Significant progress has been made by departments and lead agencies in establishing the basic security infrastructures. However, progress has been slow in several areas, such as regular security training, threat and risk assessments and security reviews.

2.3 Payments to Employees Under the Work Force Adjustment Policy — The Treasury Board Secretariat has made significant progress in analyzing the issues, and in determining the tools necessary to improve the management of the Directive. However, the measures undertaken are not sufficient for ensuring that departments are effectively managing work force adjustment and the payment provisions.

2.4 Search and Rescue — Departments have taken some action on our recommendations. However, there has also been a lack of action on many recommendations, mostly because the departments believe that what they are already doing is sufficient.

2.5 Loans to Sovereign States — The Department of Finance does not believe there is a need for an annual review of the risks and costs associated with loans to individual sovereign states (\$19.1 billion at 31 March 1994) and has not yet provided to Parliament a comprehensive annual report on Canada's international financial commitments.

2.6 Canadian International Development Agency and the Regional Development Banks — There is considerable overall progress in improving Canada's oversight of the banks. The need to change the culture that rewarded new loans ("moving money") rather than effective management of existing projects has been identified as a priority at each bank. We encourage CIDA to consider the option of periodically preparing for parliamentarians a performance-oriented report on the regional development banks.

2.7 Department of Energy, Mines and Resources — Energy Megaprojects — Progress has been made in implementing our recommendations, but the Department should be moving with a greater sense of urgency in planning for the evaluations of the Hibernia and Bi-Provincial Upgrader energy megaprojects.

2.8 Department of National Defence — The Canadian Forces Reserves — There was a varied, though mostly limited, response to our recommendations. Accountability for Reserve performance, both within the Department and to Parliament, continues to require improvement.

2.9 Public Works and Government Services Canada — Chapters in the 1987, 1988, 1989 and 1991 Reports — Many initiatives have been introduced to improve operations, but many of these have not yet been fully implemented to realize the potential benefits, which amount to millions of dollars on an annual basis.

Introduction

2.10 Departments are taking action to correct deficiencies noted in our previous Reports. Progress is slow in some areas. Timely resolution of these deficiencies is desirable to ensure funds are being used in the most efficient and effective manner.

2.11 Observations and recommendations made in our annual Report are normally followed up and their status reported two years after publication of the original chapter. This year, two follow-ups are reported in separate chapters, three have been deferred, one chapter is being partly followed up, and one does not require follow-up.

2.12 The 1990 chapter “Department of Agriculture — Farm Safety Net Programs” is followed up in Chapter 14 “Agriculture and Agri-Food Canada — Farm Income Protection”.

2.13 Follow-up on the 1992 chapter “Information for Parliament — Departmental Reporting” is included in Chapter 7 “Departmental Reporting of Sectoral Activities”.

2.14 Follow-up on the 1992 chapter “Change and Control in the Federal Government” has been deferred until 1995 so that proposed changes for 1994, such as a new control framework, can be included in the follow-up review.

2.15 The 1992 chapter on “Employment and Immigration Canada — Employment — Monitoring Performance Against Expectations” will be followed up in 1995 along with the 1993 chapter on “Canadian Aboriginal Economic Development Strategy”.

2.16 Follow-up on the 1992 chapter “Department of National Revenue — Taxation — Resolving Disputes on Income Tax Assessments” has been

deferred until 1995, so that it can be performed in conjunction with the follow-up of an “Other Audit Observations” on a related matter that appeared in our 1993 annual Report.

2.17 Follow-up on the 1992 chapter “Federal Emergency Preparedness”, included in this chapter, focusses on the status of preparation of the National Earthquake Support Plan. We plan to follow up other areas reviewed in that chapter in the future.

2.18 The 1992 chapter on “The Learning Organization” was a study, not an audit. Studies are done to increase understanding of important and complex issues. Among other things, the insights gained during a study may help us in subsequent audits. No recommendations were made in this study. Therefore, no formal follow-up is required.

Information Security Audit — 1990, Chapter 9

Background

2.19 In 1990, we reported on the departmental management of information security in government, based on a sample of 13 departments. In addition, we assessed the leadership provided to departments by central agencies. We delayed our follow-up review to allow internal auditors in those departments to complete their security reviews due December 1993, as required by the Government Security Policy. In the meantime, a rapidly changing information technology environment has been drawing more attention and effort to information technology security. In our follow-up, we reviewed the action taken by the sample departments to address our observations concerning their implementation of the Government Security Policy. The

The foundation is now in place but other security requirements still need to be fully met.

government reorganization of 1993 reduced our sample to 11 departments: the Department of Communications was merged into other departments, while Taxation and Customs and Excise became one department under Revenue Canada.

Conclusions

2.20 We found that all but one of the departments in the sample had addressed the basic infrastructure requirements of the Government Security Policy, including the definition of departmental security responsibilities and the establishment of security policies, standards and procedures. However, progress has been slow in several areas of information security, such as regular security training, threat and risk assessments and security reviews. Several departments have identified their mission-critical systems and have been establishing and testing plans to restore these systems in the case of disasters. However, no department has yet established and tested formal, comprehensive contingency plans for all critical systems at all sites.

2.21 Since 1990, the central lead agencies in information security have produced some key information security standards and guides and have created training opportunities. They have also been actively developing strategies to meet the security requirements of rapidly evolving government-wide information technology systems. The Government Security Policy was under revision during the audit and a new version was approved in June 1994. However, lead agencies are constrained by limited resources in their support of information technology security.

Observations

2.22 The Treasury Board Secretariat, the Royal Canadian

Mounted Police (RCMP) and the Communications Security Establishment (CSE) are lead agencies in the support of information security. They have put in place new policies, standards and training opportunities and have taken important initiatives in the area of security strategies for the future. However, based on our interviews and discussions with the departments, there is a perception that the lead agencies lack the resources to be strong leaders in their respective activities. Based on the risks involved, the agencies should review their appropriate level of resources required to adequately support information security, including the functions of monitoring, central co-ordination of security agencies, product evaluation and independent security reviews. The increasing integration of communications and computing across government has caused confusion between the roles of CSE and the RCMP. The new Security Policy explains and allocates the responsibilities for information technology security among the lead agencies and other departments. Hopefully, these clarifications will be sufficient.

2.23 Departments have achieved significant progress in establishing a basic security infrastructure but they must pursue their efforts to implement the Government Security Policy. All except one of the 11 departments we visited have put in place security policies, standards and measures, including control of computer viruses, and have clear lines of security responsibilities. Six of the 11 departments have also identified their mission-critical systems. Although progress has been made, much remains to be done on periodic security activities that are more resource-intensive, such as formal security training and reviews and comprehensive threat and risk

assessments. Five departments have developed contingency plans or business resumption plans for some critical systems and have been testing them to ensure that they are fully operational and effective. No department, however, has yet tested formal and comprehensive plans for all critical systems at all sites.

Payments to Employees Under the Work Force Adjustment Directive — 1992, Chapter 7

Background

2.24 In 1992, we reported on the management of lump-sum payments made to surplus employees who, in the context of work force adjustment, offered to resign before being laid off. Such payments were made under the Work Force Adjustment Policy, which had been in force until 15 December 1991.

2.25 Upon completing our audit, we concluded that the payment provision had been well-managed in some situations, whereas in others it had not been managed in a satisfactory manner. The provision was increasingly being used for purposes not intended by the Policy, such as facilitating work force renewal, solving performance problems and rewarding employees.

2.26 Among the primary factors contributing to this deterioration, we found a number of major weaknesses in the management frameworks of the Treasury Board Secretariat and of departments. We therefore recommended that the Treasury Board Secretariat improve its management framework, notably its monitoring and control mechanisms, and that it work with the

departments to help them improve theirs. We also recommended that it determine the need to develop other policies or mechanisms for managing certain human resource issues.

2.27 In the spring of 1993, the Standing Committee on Public Accounts held three hearings on our audit. During these hearings, the Treasury Board Secretariat, as the agency with ultimate responsibility for the Policy, made a commitment to seek improvement in management of lump-sum payments. The Standing Committee on Public Accounts had not issued any recommendations as of the October 1993 federal election.

2.28 The policy we reviewed (now called a directive) was amended considerably in December 1991:

- The concept of work force adjustment was expanded to include cases of devolution, privatization and contracting out, thus increasing the number of situations to which lump-sum payment provisions could be applied;
- Departments must now ensure that a reasonable job offer is made to employees they declare surplus who are mobile, retrainable and who fully collaborate. Surplus employees can then be laid off only if they refuse such an offer;
- Surplus employees henceforth normally benefit from salary protection if they are reassigned to a position at a lower level until they can be reassigned to a position at the same level as the one held when declared surplus. This protection was previously limited to one year.

2.29 At the time of writing this report, the Directive, which forms part of the collective agreement, was subject to consultation with the unions as part of a triennial review. The Directive no longer has an expiry date. It is thus deemed to be in force until such time as the employer and the unions agree to amend it, or until

The Treasury Board Secretariat has made significant progress in analyzing the issues and in determining the tools necessary to improve the management of the Directive.

the government passes legislation to amend it.

2.30 Despite these changes, we believe that the recommendations we made in 1992 are still relevant. The need to reduce expenditures is becoming more pressing. It is therefore important to ensure that any ensuing work force adjustment situations are managed effectively and that the payment provisions are used appropriately.

Objective and Scope

2.31 Our objective was to determine the extent to which the Treasury Board Secretariat had followed up on our observations and recommendations.

2.32 Our follow-up included discussions with representatives of the Treasury Board Secretariat, the Public Service Commission and a number of departments. It also included a review of various working documents and reports dealing with work force adjustment, including those issued by the Treasury Board Secretariat.

Conclusion

2.33 The Treasury Board Secretariat has made significant progress in analyzing the issues and in determining the tools necessary to improve the management of the Directive. It has also adopted a more global and strategic approach to work force adjustment.

2.34 Though the measures undertaken are appropriate, we believe that they are not sufficient. We are particularly concerned about how little information the Secretariat has to ensure that departments are now effectively managing work force adjustment and the payment provisions. It has not yet developed the structure and mechanisms to be put in place to monitor the performance of departments. The

Secretariat is aware of the need to continue to improve the management of work force adjustment situations and the payment provisions.

Observations

Efforts to improve management of the Directive in departments

2.35 During the spring of 1993, the Treasury Board Secretariat asked departments to audit some payments they had made, including a number of payments made under the revised Directive. In conjunction with the Public Service Commission, the Secretariat also initiated a review of the Directive. This review had numerous objectives, including the degree of compliance with the Directive and the quality of the management control framework in departments.

2.36 In their review report, dated December 1993, the Secretariat and the Commission indicated weaknesses similar to those we had noted in the departments' management framework, such as lack of planning, insufficient control and monitoring mechanisms, and inadequate information systems. Moreover, in its audit report, dated March 1994, the Secretariat concluded that the management of lump-sum payments continued to pose problems. In June 1994, the Secretariat forwarded to the Standing Committee on Public Accounts the conclusions and the reports of the audit and the review. In September 1994, these reports were also forwarded to departments.

2.37 As a follow-up to these studies, the Treasury Board Secretariat set up, in November 1993, the departmental work force adjustment co-ordinators network. This initiative was aimed at enhancing the expertise of departments and fostering a common approach to the interpretation

and application of the Directive. Co-ordinators have met on a regular basis.

2.38 The Secretariat has also developed a “departmental framework for the management of employment adjustment activities”. According to the Secretariat, this framework is the cornerstone of the measures to be taken to improve the management of work force adjustment in the Public Service. The framework places work force adjustment in a strategic setting, taking into account government priorities and the department’s strategic and operational plans. It also includes the administrative infrastructure that departments require to effectively manage work force adjustment situations. Finally, it deals with the specific requirements set out in the Directive. In June 1994, the Secretariat forwarded a copy of the framework to the Standing Committee on Public Accounts. In September 1994, the Secretariat communicated this framework to all departments and stated its intention to inform departments of the implications on the way they operate.

2.39 In spite of these significant improvements, in our view, more needs to be done to ensure that departments are effectively managing the Directive. Indeed, the Secretariat requested corrective action plans where our or its audit had identified weaknesses. However, it has not determined if the plans forwarded were appropriate, and it has done little follow-up to determine if any progress has been made.

Efforts to improve control and monitoring mechanisms in central agencies

2.40 Since our audit, the Treasury Board, through the Secretariat, undertook a number of measures designed to improve the co-ordination of work force

adjustment situations and the control of lump-sum payments.

2.41 In December 1992, a steering committee for employment adjustment was created to oversee progress in work force adjustments. This committee includes senior representatives of the Treasury Board Secretariat, the Public Service Commission and the Privy Council Office.

2.42 The Secretariat has also taken other measures. It has withdrawn the authority granted to Deputy Ministers to sub-delegate authorization of lump-sum payments requests. Moreover, in conjunction with the Public Service Commission, the Treasury Board announced that there would be restrictions on hiring in the Public Service in order to improve the redeployment of surplus employees. It also placed limitations on departments’ eligibility for Vote 5 — Government Contingencies — in order to make managers more accountable for the costs of their decisions. In addition, the Secretariat began developing a model for analyzing the costs associated with work force adjustment to assist departments in making informed decisions. The Secretariat is finalizing a manual aimed at helping managers to better manage work force adjustments. In spite of these improvements, additional corrective actions are needed.

2.43 During the 1992 audit, we noted that the Secretariat’s data, obtained from central payroll records, was not reliable. The Secretariat has not corrected the weaknesses reported and is still using the same data source.

2.44 Moreover, in September 1994, the Secretariat once again authorized Deputy Ministers to sub-delegate authority for payments, under certain conditions. We do not know what mechanisms the Secretariat will use to

In spite of these significant improvements, in our view, more needs to be done to ensure that departments are effectively managing the Directive.

Finally, in our view, the monitoring of work force adjustment should no longer be restricted to departments and agencies for which Treasury Board is the employer.

effectively ensure that departments comply with these conditions since it will not evaluate the structure and procedures needed to monitor the performance of departments until negotiations on the Directive have been completed. Without adequate information, the Secretariat risks being unable to call to order departments that might abuse the payment provisions.

2.45 Finally, in our view, the monitoring of work force adjustment should no longer be restricted to departments and agencies for which Treasury Board is the employer. In the past few years, many small organizations with separate employer status, such as councils and commissions, have been dissolved or amalgamated. In such situations, unless the organization has agreed to the Directive with employee representatives, it does not apply. As the manager of public funds, the Treasury Board has, however, issued a directive on the benefits to be granted to employees affected by such adjustments.

2.46 Observations from our financial audits of some of these organizations have raised concerns about the management of work force adjustments and about payments made to a number of employees. For example, the implementation of the compensation program varies significantly from one organization to another, despite the Secretariat's intent to ensure a certain degree of equity. Moreover, it is difficult to determine who is ultimately responsible for effective application of the Treasury Board's directives when the organization has been dissolved, since management is no longer there to account. Given that the review undertaken by the government on the size, mandate and the costs of similar organizations could eventually lead to major restructuring, Treasury Board needs to be vigilant.

The effectiveness of the Work Force Adjustment Directive as a management tool

2.47 The report presenting the conclusions of the review carried out by the Treasury Board Secretariat and the Public Service Commission reiterated what we said in 1992 — in the absence of an integrated human resource management policy for managing involuntary separations, the Directive was being used for purposes other than those for which it had been intended.

2.48 This report also raised some concerns about the Directive's effectiveness. The report notes: "There is contradiction between the objective of the Directive and that of the government, which, by contrast, is to reduce the size of the Public Service. Furthermore, the emphasis on employment security does not recognize termination incentives as a viable option, even though the Directive does contain provisions respecting employee resignation and related lump-sum payments."

2.49 The review also indicated a major shortcoming of the Directive, in that it does not recognize that employees are not necessarily interchangeable or that it is difficult to offer another job to highly specialized employees who are declared surplus. The authors of the review conclude that this shortcoming could have serious consequences in cases of major work force adjustments.

2.50 The Secretariat has taken certain steps to facilitate work force adjustments in specific situations or to alleviate problems identified in its review of the Directive. For example, it is developing a training program for managers to assist them with the management of poor performance. Furthermore, it has consulted with departments to identify changes required in the Directive. In

response, departments have provided numerous comments and suggestions. In the case of National Defence, the Secretariat, in conjunction with the Department and the unions, has developed an improved compensation program, available for a limited period of time, to help the Department carry out the reduction of its civilian staff by 8,400 persons as announced in the February 1994 Federal Budget.

2.51 There are nevertheless situations where applying the Directive could present difficulties given the specialization of employees affected by work force adjustments. For example, Chapter 27 of this report deals with the management of infrastructure at the Department of National Defence and discusses the fact that the Department will face significant constraints on ensuring a more efficient management of resources once the special compensation program expires. Similarly, as indicated in Chapter 11, departments and scientific research establishments must be able to adapt their work force to the strategic and technological changes they must make. These departments believe that they have no effective tool for managing work force renewal. In fact, in cases where researchers are declared surplus, their level of specialization makes reassignment difficult. We recognize, however, that departments and research establishments have not always clearly demonstrated the need to modify the Directive or to develop other tools. Treasury Board should either adapt the Directive, through consultation with unions or legislation, as appropriate, or develop other tools to meet these specific needs. In the current context of expenditure and wage restraints, this represents a significant challenge.

Search and Rescue — 1992, Chapter 8

Background

2.52 Our 1992 audit of the search and rescue program focussed primarily on the federal search and rescue activities to aid people in distress. We also reviewed the management of the National Search and Rescue Program. Our audit covered the Department of National Defence, Department of Transport, National Search and Rescue Secretariat and Department of Fisheries and Oceans (the departments).

Scope

2.53 Our follow-up involved reviewing and discussing with departmental officials the departments' June 1993 and January 1994 status reports to the Public Accounts Committee on action taken in response to our 1992 observations and recommendations. We obtained and reviewed documentation to support reported progress.

Conclusion

2.54 The departments have taken some action in response to our recommendations, but work remains in most areas to fully address our concerns. The lack of action by the departments on many of our recommendations is mostly due to the belief that what they are already doing in many areas is sufficient.

Observations

Significant elements of a National Search and Rescue Program have not been developed

2.55 In 1992, we recommended that all departments and agencies involved in

search and rescue accelerate efforts to reach agreement on the principles of the National Search and Rescue Program and develop applicable legislation, if required. The departments have held multijurisdictional meetings and briefings with the provinces starting in the spring and early summer of 1993. The meetings to date have focussed on gaining agreement on the objectives and principles of the National Search and Rescue Program.

2.56 During the last round of discussions, general agreement was reached on the broad outline of the program. However, more remains to be done to achieve the agreement needed for effective management of all search and rescue resources.

Service standards including performance information are lacking

2.57 At the time of our follow-up, the Department of National Defence and the Canadian Coast Guard were continuing to refine their readiness standards. However, the departments have neither established nor used time-based search and rescue service standards to plan for resources and indicate to the public the expected response standards for search and rescue resources. They continue to believe that time-based service standards would not be beneficial or practical because they do not provide a true indication of the effectiveness of the search and rescue program.

2.58 The departments involved in search and rescue are currently enhancing and integrating their information systems. However, they continue to lack an automated performance information system to provide timely data on the performance of federal search and rescue resources. In addition, further analysis of

the severity of the incident and the type of assistance provided continues to be required for decisions on level of service, acquisition and management of resources.

Expanded use of volunteer and other resources should be pursued

2.59 In 1992, we recommended that the departments pursue the opportunities to increase the use of volunteers and other resources in search and rescue activities.

2.60 The Canadian Coast Guard has implemented procedures to assist volunteers in establishing search and rescue programs, and the Department of National Defence has recently renewed its Memorandum Of Understanding with the Civil Air Search And Rescue Association. The departments believe that those efforts have resulted in more use of volunteers and other resources in conducting search and rescue activities.

Greater use of other federal resources for search and rescue is possible

2.61 In 1992, we recommended that the Department of National Defence and the Canadian Coast Guard pursue the opportunities for increased use of other federal resources in providing search and rescue services.

2.62 The Department of National Defence is currently conducting a Defence Policy Review, and the search and rescue and Navy helicopter replacement project is being re-examined in conjunction with this Review. As a result, the Department was unable to indicate what impact this Review will have on the resources available to conduct search and rescue operations.

2.63 The Canadian Coast Guard states that it is currently pursuing the use of other federal resources.

The provision of search and rescue service with patrol vessels requires re-examination

2.64 A 1992 Department of Transport program evaluation of search and rescue indicated that the costs of providing patrol vessels exceeded the benefit provided. Further, we recommended in our 1992 chapter that the Canadian Coast Guard consider the appropriateness of decommissioning all search and rescue patrol vessels and discontinuing search and rescue patrols. At the time of our follow-up, a search and rescue program needs analysis had concluded that two of six Type 600 and two Type 500 search and rescue patrol vessels should remain in service, to be supplemented by using more multi-tasked vessels. By implementing more multi-tasked vessels, the costs reported for search and rescue activities has increased significantly, because some costs of operating the larger multi-tasked vessels are now charged to search and rescue rather than icebreaking or navigational aids as in the past.

Analysis of the causes of beacon failures and false alarms is required

2.65 In 1992, we recommended that the Department of Transport ensure that information on the causes of beacon failures and false alarms is collected, analyzed and considered before taking action designed to address beacon failures. The Department is aware of causes of beacon failures through its participation in international aviation and marine organizations working to address these problems. However, it still does not conduct ongoing analysis of the causes of aircraft and marine beacon failures and false alarms in Canada.

***Canadian Coast Guard Comments:** The Coast Guard has established Levels of Service for Search and Rescue which*

focus on quality and extent of service and the effectiveness of response, based on the actual probability for effecting a rescue. On the basis of these Levels of Service criteria it should be noted that the comparable results between Canada and the US for the period 1986 to 90 are 90.5% versus 80.3%. The departments are nonetheless committed to their efforts at improving performance reporting and analysis.

The Coast Guard specifically conducted the search and rescue program needs analysis cited in the report to address, in part, the issues raised by the Auditor General. This needs analysis confirmed the benefits of patrol mode operations in high-risk areas. The apparent increased cost arising with the use of multi-tasked vessels was attributable to the lack of clear guidelines regarding how they were to be accounted. This is an accounting issue and it will be resolved in the future financial reports.

Information on causes of beacon failures and false alarms is collected and analyzed before any action is taken to address beacon failures. The problem is one of universal concern and is being actively examined by the International Regulating bodies of IMO and ICAO and has resulted in the move to adopt more reliable equipment. Most importantly, special procedures have been put in place to enable the Rescue Coordination Centres to identify their sources and ascertain whether these are genuine.

Loans to Sovereign States — 1992, Chapter 10

Background

2.66 In 1992, we reported on how the government recognizes and accounts for the risks associated with direct loans to sovereign states as well as those it guarantees. In addition, we reported on the adequacy of the information presented

to Parliament on all sovereign lending, including the various risks associated with these loans. Our follow-up reviewed the actions taken by the government to address our 1992 observations and recommendations.

Conclusion

2.67 The Department of Finance still does not believe there is a need for an annual review of the risks and costs associated with loans to individual sovereign states. In this regard, the Department has taken limited action. Notwithstanding our opinion that the allowance was adequate as of 31 March 1994, we continue to disagree with its basis.

2.68 Parliament still needs to receive comprehensive annual reporting on Canada's international financial commitments. The Department of Finance has stated its willingness to provide additional information to Parliament on an aggregate basis, and is examining ways of doing so.

Observations and Recommendations

Risks Associated with Sovereign Loans

2.69 In 1992, we reported that individual sovereign states owed Canada \$16.7 billion as of 31 March 1992. This amount had increased to \$19.1 billion as of 31 March 1994 (see Exhibits 2.1 and 2.2) and continues to grow as additional credit is extended by Canada and interest compounds on amounts rescheduled. Most of this credit — \$14 billion — was extended by two Crown corporations, the Export Development Corporation (EDC) and the Canadian Wheat Board (CWB), to support export sales. Also included was \$2.4 billion loaned to sovereign nations through the Canada Account to enable them to buy Canadian exports on credit. This account is managed for the government by the EDC and is used to make loans deemed to be in the national interest.

2.70 Both the EDC and the CWB finance their export sales to sovereign states by borrowing domestically and internationally, using the Government of Canada as guarantor. As the government

Exhibit 2.1

Government of Canada Consolidated Sovereign Loan Exposure (1)

Millions of Dollars
(unaudited)

	31 March 1994	31 March 1992	Difference
Government of Canada:			
Department of Finance	540	600	(60)
Canadian International Development Agency	1,970	2,350	(380)
External Affairs – Canada Account	2,400	1,570	830
Agent Crown Corporations (2)			
Export Development Corporation (3)	7,360	6,320	1,040
Canadian Wheat Board	6,830	5,860	970
Total Consolidated Exposure	19,100	16,700	2,400

(1) Including accrued interest (booked and unbooked) on loans
(2) EDC and CWB are not consolidated in the Public Accounts
(3) Excluding provisions made for uncollectable loans

Source: Department of Finance

guarantees this borrowing, in effect it assumes the risks and the resultant costs if a sovereign state is unable to pay or if it delays repayment of its loans to the corporations.

2.71 In our 1992 Report, we suggested that the government review its current policies for recognizing and accounting for risks associated with loans to sovereign states to ensure that they are appropriate and realistic and that the government's financial statements adequately reflect the costs of those risks.

2.72 In accordance with its stated accounting policies in the 1994 Public Accounts: "The Government views loans to sovereign states as collectable unless formally repudiated by the debtor. The Government establishes allowances in respect of potential debt or debt service relief measures for financially troubled countries under multilateral agreements". In addition, the EDC, in accordance with its accounting policies as stated in the 31 December 1993 financial statements, "prudently sets aside a general allowance based on Management's best estimates of potential losses on the commercial and sovereign loans receivable portfolio for

which no specific provision has been made". Unlike the EDC, the CWB's stated accounting policy is not to record any allowance for its sovereign loans, because of its reliance upon the guarantee of the government.

2.73 Many financial institutions, including Canadian commercial banks, recognize and quantify the risks associated with their sovereign loans, based on guidelines established by their national governments (in Canada, these guidelines are established by the Office of the Superintendent of Financial Institutions). Even the World Bank and regional development banks (see paragraphs 2.81 to 2.121), which have 'preferred creditor status' ahead of national governments such as Canada, recognize and quantify the risks associated with their sovereign loans. For the year ended 30 June 1993, in recognition of the increased risk of sovereign debt, the World Bank increased its loan loss provision from US \$2.5 billion to US \$3.1 billion, for exposure totalling US \$105 billion. The decision to increase the provision was supported by Canada's Department of Finance.

	31 March 1994	31 March 1992	Difference
1. Poland	3,778	3,516	262
2. Russia/U.S.S.R.	2,566	1,712	854
3. China	1,423	771	652
4. India	1,050	1,001	49
5. Brazil	886	917	(31)
6. Egypt	657	702	(45)
7. Peru	608	531	77
8. Algeria	599	706	(107)
9. Mexico	591	495	96
10. Pakistan	567	583	(16)
11. Other	6,375	5,766	609
Total Aggregated Exposure	19,100	16,700	2,400

(1) Including accrued interest

Exhibit 2.2

Aggregated Sovereign Loan Exposure (1), by Country (Consolidated EDC and CWB and Government of Canada)

Millions of Dollars
(unaudited)

The top ten countries represent 67% (1992–65%) of the total loan exposure.

Source: Department of Finance

2.74 In November 1993, the Department of Finance analyzed the risks associated with debt or debt service relief for sovereign loans under existing Paris Club multilateral agreements, and provided support for the amounts held in the related allowance. The analysis considered specific debt or debt service relief options available to the government, and their costs. It indicated to the Department that, together with allowances recognized by the EDC, the government had adequate provisions as of 31 March 1993 to cover these specific debt and debt service relief options.

2.75 In connection with our audits of the government's financial statements as of 31 March 1993 and 31 March 1994, it was our view that the allowance was sufficient to result in a fair presentation of those statements. Notwithstanding our opinion that the allowance was adequate as of 31 March 1993, and 31 March 1994, we continue to disagree with its basis. We believe that the basis of the allowance should be the risk associated with the loans to individual sovereign states rather than a general allowance for only those loans to sovereign states that have negotiated, or have reasonable certainty of negotiating, multilateral agreements.

2.76 We also believe that the Department of Finance should review, on a regular basis, the risks associated with its loans to individual states; especially those loans with the greatest exposure, such as those to some Eastern European countries (see Exhibit 2.2). With the exception of the allowances established for debt relief under multilateral agreements, the Department informed us that, due to the rarity of outright repudiation of sovereign debt, there is no need for the government to take action to recognize or account for the risks associated with loans to sovereign states.

Better Information to Parliament

2.77 In our 1992 Report, we also suggested that better information be provided to Parliament on overall sovereign loan exposure, including adequate disclosure of total costs and commitments with respect to debt relief.

2.78 Parliament needs to receive comprehensive information on Canada's sovereign loan portfolio and commitments, including exposure by country, and on yearly activities including debt or debt service relief. The need for such 'sectoral' information is discussed in Chapter 7 of this Report; the information that we believe could be disclosed by the lead department (Finance) is set out in Exhibits 2.1 and 2.2. Information could also be provided on the International Assistance Envelope and on Canada's participation in the International Monetary Fund, the World Bank and the other international financial institutions that extend loans to sovereign states (see paragraphs 2.81 to 2.121).

2.79 As reported in our 1992 Report, in 1991 the Canadian government agreed, pursuant to a Paris Club agreement, to pay the EDC and the CWB a portion of the interest payments due from Poland and Egypt (debt service relief). Over a period of 18 to 25 years, an estimated \$3.1 billion of the allowance was to have been used as payments were made to the EDC and the CWB for debt service relief to Poland and Egypt (the present value of the series of payments is about \$2 billion). Recently, the Department of Finance informed us that it intended to switch from debt service relief to debt relief (forgiveness of principal and interest) for Poland and Egypt. Rather than continuing to make a series of interest relief payments over the next 20 years, the Department of Finance informed us the result may be multiple drawdowns of the

allowance over a two to three year period. This is another example of the type of information that could be provided to Parliament.

2.80 In response to our follow-up work, the Department of Finance has stated its willingness to provide additional information to Parliament on an aggregate basis. The Department informed us that it is currently examining mechanisms to present this information.

Department's response: Risks Associated with Sovereign Loans. The Department of Finance's policies and procedures are reflected adequately. A difference of opinion remains regarding applicability of the principle of ultimate collectibility to loans to sovereign governments and about the risks of outright repudiation. In this connection, we would wish to point out that Paris Club reschedulings have protected the net present value of Canada's sovereign loans. Also, we are pleased to note that there is agreement on the adequacy of the government's contingency reserve.

Better Information to Parliament. The Department of Finance is in the process of identifying the best means of providing information to Parliament on Canada's sovereign loan exposure aggregated on a country-by-country basis. The Department will continue to work with parliamentary staff to determine the most appropriate content and format of such information.

The Department of Finance will also be providing information to Parliament on Canada's debt reduction activities. Parliamentary authority was previously obtained for debt reduction payments made over the past three years. The Department of Finance is now seeking to renew its authority to make such payments. Accordingly, the amount of debt reduction that will be provided to each country and the related beneficiaries

will be appearing in the Public Accounts of Canada in 1994-95 and subsequent years.

Canadian International Development Agency and the Regional Development Banks — 1992, Chapter 11

Background

2.81 In 1992 we reported on CIDA's management of Canada's participation in the regional development banks (RDBs): the African Development Bank, the Asian Development Bank and the Inter-American Development Bank. Noting that Canada's involvement with the RDBs was a significant and growing aspect of multilateral co-operation, we conducted the audit to help Parliament scrutinize the activities, financial resources and, most important, the developmental results associated with Canada's participation. We recommended that CIDA:

- periodically assess and report how Canada's objective of promoting social and economic development in developing countries has been achieved through the regional development banks;
- seek clarification from the appropriate authority, possibly through legislation, of what the Minister could reasonably be asked to account for in terms of the means chosen and the results achieved in respect of Canada's participation in the regional development banks;
- urge the regional development banks to carry out systematic analyses of their loan portfolios based on the sovereign risk of individual borrowers;
- in consultation with the Department of Finance and the Office of the Comptroller General, reconsider the

accounting treatment of paid-in capital of the regional development banks;

- seek amendments to the *International Development (Financial Institutions) Assistance Act* that would require the Minister to obtain the approval of Parliament before financial commitments are made to the unpaid capital subscription of the regional development banks;
- in consultation with the Department of Finance and the Office of the Comptroller General, reconsider and revise, as appropriate, its accounting for and reporting of notes payable to the regional development banks;
- try to link the results expected from its participation in the regional development banks with the money spent. If CIDA finds that this link cannot be made, it should disclose the basis for this finding in its Part III of the Estimates; and
- seek, possibly through amendments to the *International Development (Financial Institutions) Assistance Act*, a requirement for conducting a periodic assessment and report to Parliament on the developmental and other returns from Canada's participation in the regional development banks.

2.82 The need to enhance the effectiveness of the banks as instruments of development has become a matter of growing concern to many member nations. In 1994, the Development Committee of the International Monetary Fund/World Bank agreed to establish a task force to review the development impact of these institutions. The task force is expected to report to the Committee at its October 1995 meeting. CIDA has informed us that it proposes to monitor this task force through the office of the Canadian directors to ensure that there is comprehensive coverage of the regional development banks as well as of the Bretton Woods institutions.

Conclusion

2.83 There is considerable overall progress in improving Canada's oversight of the banks. As an active member in the RDBs, Canada has helped to modify some of their policies and programs in light of Canadian concerns and developmental objectives. CIDA has fully recognized the need to strengthen the Minister's accountability to Parliament for the effective use of funds provided to these institutions for the fight against poverty and to report periodically on the results achieved. The quality of the loan portfolio of each bank is being assessed for its development impact. Major reforms are under way to improve management at the banks and the quality of the projects they fund. Systematic analyses of the banks' loan portfolios, based on the sovereign risk of individual borrowers, are now being conducted in conjunction with assessment of their financial viability. The need to change the culture that rewarded new loans ("moving money") rather than effective management of existing projects has been identified as a priority at each bank.

Observations

How effective are the regional development banks?

2.84 CIDA agreed that the objectives and results of Canada's participation in the banks needed to be clearly stated, and it has taken a number of actions in this regard.

- CIDA has sponsored, along with other donors, a study of the banks by the North-South Institute. The study examines a series of indicators related to the objectives of the banks and provides information on what Canada has achieved through its contributions to the banks. The study states, however, that it is very difficult to determine exactly how

effective the banks are. The Institute points to the need to monitor the performance of the banks in implementing strategies aimed at reducing poverty, and to continue to press them to demonstrate the results of those strategies. CIDA has reviewed the methodology used for the study and agrees with its conclusions.

- CIDA has encouraged the banks to focus more on developmental activities that support the objectives of Canada's aid policy — poverty reduction, environmental sustainability and good governance. For example, in the recent general resource increase of the Inter-American Development Bank, the Bank agreed to increase its programming for the social sector to 40 percent of total lending. The African Development Bank has agreed to channel "...around 20 to 25 percent [of lending] for the social sectors...the bulk [of which] should be committed in support of primary health care and primary education...." Special emphasis will be put on the environmental aspect of the energy and forest sectors. The strategic objectives for the Asian Development Bank include economic growth, poverty reduction, more involvement of women in development, population planning, and environmental protection...all Canadian priorities.

- CIDA has started a series of reviews of the development impact and quality of projects funded by the banks. It is using these reviews as tools to advocate greater emphasis on areas important to Canadian objectives.

- CIDA has also played an important role in advocating the establishment of portfolio task forces by the banks, which have examined the quality of bank projects and made far-reaching recommendations to bank management to improve that quality. The banks are now implementing action plans to address the recommendations of the task forces. It is too early to assess their impact.

Clarifying accountability

2.85 CIDA has embarked on a comprehensive "management renewal" process, which incorporates, as one of its central tenets, "results-based management". It is fully committed to enhancing accountability, including its accountability for participation in the regional development banks. We urge the Agency to complete this component and to report on its findings to Parliament as soon as practicable.

Monitoring the quality of loan portfolios

2.86 CIDA has completed the second annual update of its assessments of financial viability of each of the banks. These assessments form the basis for CIDA's monitoring of the financial aspects of the banks, including their portfolio quality and the adequacy of their financial policies. The assessments are shared with like-minded donor countries and, as appropriate, with bank management. Through its executive directors at each institution, CIDA has encouraged the banks to improve their comprehensive analyses of the quality of their loan portfolios.

2.87 The banks are responding with greater transparency in regard to country risk. The Asian Development Bank, for example, has decided to establish a special unit to assess sovereign risk. Similarly, at Canada's urging, the Inter-American Development Bank is preparing a special report on credit risk while African Development Bank management has proposed a comprehensive upgrading of its financial policies and a revision of its policy on country exposure and risk assessment.

2.88 CIDA is currently revising its Framework for the Assessment of Financial Viability and will soon complete

its third set of financial viability assessments of the banks.

Accounting for Canada's paid-in capital

2.89 CIDA still agrees with the Comptroller General of Canada that the current accounting treatment is appropriate: that paid-in capital is used by the development banks to make loans to developing countries; that these investments are essentially a flow-through mechanism for Canada and other countries to make loans to sovereign states; and that government's valuation policy for sovereign loans also applies to these subscriptions. In other words, the loans are viewed by the government as collectable unless formally repudiated by the debtor countries. Notwithstanding this stated position, we continue to believe that it does not reflect reality.

Parliamentary approval for unpaid capital subscriptions

2.90 CIDA has disclosed, in Part III of the Estimates, the financial commitments for the unpaid capital subscriptions of the banks. In the 1994-95 Part III, for example, CIDA clearly identified the callable capital for each bank. As previously indicated, it is CIDA's intention to change the vote wording for financial commitments for the unpaid capital subscriptions of the regional banks. A modified vote wording will be reflected in the 1995-96 Estimates documents.

Accounting for notes payable

2.91 CIDA continues to believe that the current accounting treatment is appropriate, and has not undertaken any additional measures. It points out that the Department of Finance holds the same view.

Parliament needs to know the risks and benefits

2.92 CIDA agreed to the periodic assessment and reporting of how Canada's objectives, as set out in the *International Financial Institution (IFI) Act*, are being achieved through the banks. It attempts to make such assessments on an ongoing basis and, in particular, in the context of decisions on fund replenishment or capital increase negotiations. It undertook to try to improve the link between funds disbursed by Canada to the banks and the results expected from our memberships. CIDA noted, however, that assessing the benefits of participation against Canada's objectives in unequivocal and quantifiable terms is difficult. The banks engage in a range of activities that provide benefits to Canada and the international community but that are not easily measured.

2.93 In addition, CIDA has analyzed the various task force reports on portfolio quality, and the findings will be factored into the extent and nature of Canada's future participation in the banks.

Reporting to Parliament

2.94 CIDA has begun to improve its reporting through Part III of the Estimates, and in 1994-95 stated: "CIDA is continuing its review of the IFIs which began in 1992-93 ... This research will help the Agency assess the developmental effectiveness of the RDBs and better define long-term objectives for both the IFI system and its component parts." In addition, CIDA officials and Canadian executive directors have continued to appear before parliamentary committees as requested, including the subcommittee on IFIs. CIDA is currently considering how to more systematically provide pertinent information from Canada's directors in the regional banks to parliamentarians. We encourage CIDA to consider the option of periodically

preparing for parliamentarians a performance-oriented report on the regional development banks.

Department of Finance — Participation in the Bretton Woods Institutions and in the European Bank for Reconstruction and Development — 1992, Chapter 12

Background

2.95 In 1992, we noted that because of the significant financial commitments involved, the Department of Finance and the government needed to carry out periodic reviews and assessment of the objectives, extent and results of Canada's participation in the Bretton Woods institutions (the International Monetary Fund and the World Bank Group) and weigh them against Canada's financial commitments to these institutions and other demands on the public purse.

2.96 We observed that several factors pointed to the need for such review. Those factors included the reported decline in the success rate of projects supported by the World Bank, the evolution in the roles and operations of the institutions, and domestic fiscal restraint. We also observed that the Department of Finance needed to further improve the information on the objectives and results of participation and on the associated financial commitments and risks to which Canada was exposed.

2.97 Since our audit, there have been a number of relevant developments. A sub-committee of the House of Commons Standing Committee on Finance, which

was established to study the management and policies of international financial institutions, in particular the International Monetary and the World Bank Group, completed its work and issued a report in June 1993. The report confirmed our recommendations and went even further to recommend analysis and review of the World Bank's practices.

2.98 A Special Joint Committee of the House of Commons and the Senate is currently carrying out a review of Canadian foreign policy, which includes a review of Canada's international assistance priorities, policies and approaches. The Committee's report is expected in the fall of 1994.

2.99 In 1994, the Development Committee of the International Monetary Fund/World Bank decided to establish a small task force to review the development role being played by multilateral development banks, including the World Bank and the main regional banks. The task force is expected to report to the Committee at its meeting in September/October 1995.

2.100 Our follow-up reviewed actions taken by the Department of Finance to address our recommendations.

Conclusion

2.101 Finance has initiated actions to address our major recommendations. However, it is too early to assess the impact of those actions. The Department has embarked on a review to examine the effectiveness of Canada's participation in international financial institutions (IFIs) as a means of influencing economic development in developing countries and achieving other Canadian foreign policy, economic development and commercial objectives. The review is yet to be finalized and provided to Parliament.

2.102 Canada and other member countries were instrumental in encouraging the World Bank management to focus more on results in its evaluation than on the amount of loans for development projects, and in having the Bank management review the adequacy of loan loss provisioning and reserves-to-loans ratio.

2.103 The Department of Finance has improved information it provides to Parliament on Canada's participation in the International Monetary Fund and World Bank Group. However, it needs to pursue further the difficult task of selecting and reporting on indicators that could serve in assessing how well Canada's objectives for participation in these institutions are being achieved.

Observations

Objectives and results of Canada's participation

2.104 We recommended that the government provide a clear and comprehensive statement of the objectives of Canada's participation in the Bretton Woods and related institutions. We also recommended that the Department of Finance identify, monitor, analyze and report selected indicators that can serve in assessing how well Canada's objectives for participation in these institutions are being achieved.

2.105 The Department agrees that the objectives of Canada's participation in these institutions need to be clearly stated. In its 1993 Report on Operations under the *Bretton Woods and Related Agreements Act*, the Department identified three main objectives to support sustainable development in the poorest countries, which the International Development Association (IDA 10) agreement

emphasized that IDA should focus on — poverty reduction, economic adjustment and growth, and environmental protection. The Department also listed a number of specific benefits to Canada of International Monetary Fund membership, and reported on Canada's role, along with other countries, in encouraging the World Bank to integrate environmental criteria into its lending programs.

2.106 In internal documents on the IDA 10 review, the Department reviewed specific indicators of results of developmental assistance, such as proportion of population below poverty line, life expectancy, education attainment index and GDP per capita — by country and region. However, other than indicators such as procurement in Canada by the World Bank and the International Development Association, and the number of Canadians working in the Bank, which it had reported in the past, the Department has not selected and reported such indicators to help in assessing how well Canada's objectives for international financial assistance through participation in these institutions are being achieved.

Evaluation

2.107 We recommended that the Department of Finance investigate the feasibility of Canada undertaking a joint evaluation with other interested members to assess the cost-effectiveness of participation in the Bretton Woods and related institutions as a way of promoting national objectives. Lessons learned could be applied to improve the functioning of the institutions, particularly concerning the objectives of countries that supply hard currencies and the financial backing for market borrowing. We also recommended that Finance consider combining its evaluation capacity with that of other departments and agencies

involved, such as CIDA, to assess the extent of Canada's overall participation in multilateral financial institutions.

2.108 Finance has initiated a review of Canadian participation and strategy, to examine the effectiveness of Canada's participation in international financial institutions (IFIs) as a means of influencing economic development in developing countries and achieving other Canadian foreign policy, economic development and commercial objectives. A draft report has been prepared and circulated interdepartmentally for discussion prior to being finalized.

2.109 The draft report specifies current Canadian objectives for participating in IFIs, and provides qualitative and some quantitative assessment of their achievement. It also raises questions, but provides no specific answers, about the most cost-effective way of combining the bilateral and multilateral mechanisms for delivering aid programs, and how large a presence is necessary to continue to influence IFI activity in order to advance Canadian objectives. In addition, the report presents guiding parameters for Canada's participation in IFI replenishment negotiations.

2.110 Two of the conclusions of the review are that multilateral development banks (MDBs) have been important in advancing a number of Canadian objectives, thereby complementing Canada's bilateral assistance program; and that MDBs have had a more mixed success in addressing the Canadian policy agenda of poverty reduction, social and private sector development and environmental sustainability. The report is yet to be finalized. We encourage the Department to complete the review and to include a summary of its conclusions in its next Report on Operations under the

Bretton Woods and Related Agreements Act or in its Part III of the Estimates.

2.111 The Department supported a comprehensive study of the banks by the North-South Institute, which was sponsored by CIDA and other donors. (see paragraph 2.84 in CIDA follow-up, which reported on this study).

2.112 Canada and other member countries were instrumental in encouraging the World Bank management to focus more on results than on the amount of loans for development projects. In May 1993, the World Bank adopted a program of action to respond to the recommendations of a task force that it had established in 1992 to examine problems affecting the quality of its portfolio of loans and credits. One of the recommendations of the task force was to enhance the role of the Operations Evaluation Department (OED) of the Bank, as an instrument of independent accountability, and to give greater emphasis to impact evaluations.

2.113 The OED has begun work on impact evaluations and has completed seven by mid-1994. Canada continues to influence the results-oriented direction and emphasis of OED's evaluations through its executive director who is a member of the Joint Audit Committee of the Bank, which, among other functions, oversees OED's work.

Financial risk

2.114 We recommended that, because the financial risk to which Canada is exposed in the World Bank is closely linked to the level of provisioning, Finance consider calling for an assessment, in collaboration with its G-7 partners, of the loan loss provision rate and the method used to determine it. The assessment would ensure the adequacy of accumulated provision for loan losses

from the perspective of shareholders, so that the risk of a call on capital would remain low.

2.115 As a result of encouragement from Canada and other member countries, the World Bank carried out a review of the adequacy of its loan loss provisions and reserves. In April 1993, the executive directors of the Bank (which includes those from all G-7 countries) were presented with a paper entitled "Review of the Adequacy of Loan Loss Provisions and Reserves". The paper discussed how loan loss provisions for the Bank are determined to ensure the adequacy of accumulated provision for loan losses from the perspective of the shareholders. In May 1993, the executive directors of the Bank approved an increase in the rate of loan loss provisioning from 2.5 percent to 3.0 percent. As well, the target for the ratio of reserves to loans was increased to a range of 13 to 14 percent, to be achieved during fiscal years 1994 to 1995.

Information for Parliament

2.116 We recommended that the vote wording in the Appropriation Act for payments to the World Bank indicate that the payments are for the purchase of shares, and the amount of financial commitment for the callable capital portion. We recommended that, as Finance continues to improve the information it provides to Parliament on Canada's participation in the International Monetary Fund, the World Bank Group and the European Bank Group for Reconstruction and Development, the Department should also provide more complete and understandable information on the objectives and results of participation and on the resulting financial commitments.

2.117 Since our 1992 audit, Parliament has approved one payment to the World

Bank for the purchase of shares. The vote wording in the Appropriation Act did not indicate that the payment was for the purchase of shares; nor did it indicate the amount of financial commitment with respect to the callable capital portion. However, in Part III of its 1994-95 Estimates, the Department specified that payments for the purchase of World Bank shares represent only the paid-in portion of the shares, as the callable portion would become payable only in the unlikely event that the funds were required.

2.118 Finance has further improved information it provides to Parliament on Canada's participation in the International Monetary Fund and World Bank. Since our 1992 audit, new information on Canada's objectives and benefits from such participation has been added to the annual report under the *Bretton Woods and Related Agreements Act*. This new information includes specific benefits to Canada resulting from membership in the International Monetary Fund, Canada's particular interest and the reason why it supported the enlarged International Monetary Fund Enhanced Structural Adjustment Facility, and Canada's policy priorities in regard to the World Bank's Special Program of Assistance. However, our concern about inadequate information on the results of Canada's participation has yet to be fully addressed. The completion and publication of the results of the Department's current review of Canadian participation and strategy should help to do so.

2.119 Information reported on financial commitments has improved. The annual report on the *Bretton Woods and Related Agreements Act* now includes a table outlining Canada's financial position in the International Monetary Fund. However, the report still does not clearly indicate how much money has been

committed and how much money has been spent for International Development Association subscriptions. Again, this information, including comparative cumulative capital subscriptions by G-7 countries as of 31 December 1992, is presented in the draft report on the review of Canadian participation and strategy.

Accounting for notes payable

2.120 We recommended that the government reconsider, and revise as appropriate, its accounting for and reporting of notes payable to the International Development Association.

2.121 Finance believes that the accounting for and reporting of notes payable to the International Development Association are appropriate. However, the government is working on a paper to review the current accounting treatment and assess whether any changes are needed. We will continue to work with the government in that review to resolve this accounting issue.

Department's response: The Department has reviewed with interest the follow-up report and appreciates the constructive dialogue which has taken place with the Office of the Auditor General.

We wish to make only one comment relating to the suggestion that the Department should reconsider the way it accounts for notes payable to the International Development Association (IDA). On this point, we would simply note that current accounting standards allow for either methodology. Both Finance and the Treasury Board Secretariat share the view that the current practice of accounting for our contributions as notes are encashed, rather than issued, is fully appropriate. However, as mentioned in the report, the current accounting treatment is being

reviewed to assess whether any changes are needed.

Department of Finance — Loan Guarantees — 1992, Chapter 13

Background

2.122 In 1992, we reported on the extent of compliance with the government's guidelines to control the design of new loan guarantees; on how the risks and related costs are recognized and accounted for; and on the adequacy of the information provided to Parliament about loan guarantees.

2.123 We recommended that the government recognize the cost or risk of loss of a loan guarantee on an annual basis and account for loan guarantee costs by establishing an appropriate reserve in its Statement of Assets and Liabilities. We also indicated that there was a need for the government to review the way it estimates the costs of loan guarantees.

Conclusion

2.124 The government has revised its accounting policy on loan guarantees, and the accrued costs of loan guarantees are now included in the Financial Statements of Canada.

Observations

Accounting for loan guarantee costs

2.125 In 1993, changes were made in accounting policies for loan guarantees. An allowance for loan guarantees is now recorded, and included in accounts payable and accrued liabilities when it is likely that a payment will be made in the future to honour a guarantee and where the amount of the loss can be reasonably estimated.

Estimation of risk of losses

2.126 The government has revised the way it estimates the risk of loss on loan guarantees. The estimation of the risk is now based on departmental assessments of the likely payments on any loan guarantee issued and in effect at the end of the fiscal year. This new estimation method provides a more realistic indication of the risk associated with loan guarantee programs and their potential liability.

Security against government–guaranteed loans

2.127 In 1992, we noted that the terms and conditions of the Small Business Loans Program did not require lenders to take a first fixed charge on the assets used to secured guaranteed loans. The Small Business Loans Regulations were amended in 1993 and now impose such a requirement.

- For Hibernia, the Department has taken initiatives to improve its monitoring of benefits and recommendations arising from the environmental assessment and review process.

- The Department has improved access to information on the Bi–Provincial Upgrader project and has set up a specific unit to monitor the environmental impacts.

- The Treasury Board has issued a policy to aid departments in managing future projects of this type. This policy addresses the concerns raised in our 1992 Report.

- The Canada Hibernia Holding Corporation (CHHC) is appropriately fulfilling its mandate to manage Canada's 8.5 percent equity interest in Hibernia in a commercial manner.

2.130 The Department has also improved reporting to Parliament about its own funding responsibilities for the energy megaprojects. The separation of responsibilities between the Department and CHHC for funding Hibernia creates a division in the reporting of financial information. This makes it difficult for parliamentarians to obtain a full understanding of the overall financial arrangements and exposures relating to the Hibernia Development Project.

2.131 In its recently completed draft evaluation framework, the Department has made progress in identifying the issues that need to be addressed by an evaluation of Hibernia. However, it has not completed an assessment of the precise information it requires to do such an evaluation. The framework has yet to be approved within the Department.

2.132 The government is accountable to taxpayers and to Parliament for the results obtained from the large federal investments in the Hibernia and Bi–Provincial Upgrader energy

We were encouraged to see progress in implementing our recommendations.

Department of Energy, Mines and Resources — Energy Megaprojects — 1992, Chapter 14

Background

2.128 In 1992, we examined and reported on the Hibernia, Lloydminster Bi–Provincial Upgrader and Regina NewGrade Upgrader energy megaprojects assisted and funded by Natural Resources Canada (which incorporates the former Department of Energy, Mines and Resources).

Conclusion

2.129 We were encouraged to see progress in implementing our recommendations.

megaprojects. We believe that the Department should be moving with a greater sense of urgency in planning for evaluations of these projects.

2.133 In light of these ongoing issues concerning the megaprojects, we will continue to monitor government participation in the projects.

Observations

Introduction

2.134 NewGrade Upgrader. The nature of Canada's support to the NewGrade Upgrader has changed since our 1992 audit. The federal commitment was for up to \$275 million in loan guarantees. The Government of Canada, the Province of Saskatchewan and Consumers' Co-operative Refineries Limited, the operator, have agreed to a financial restructuring of the project. A combination of a heavy debt load and depressed oil price differentials threatened the Upgrader's ability to meet its debt obligations. Under the terms of the new agreement, Canada will make a one-time payment of \$125 million to the project. In exchange for this payment, Canada is to be relieved of any future financial obligations related to the project, and Saskatchewan will indemnify the Government of Canada in the event that Canada's loan guarantees are called.

2.135 Bi-Provincial Upgrader. Construction of the Bi-Provincial Upgrader (a joint venture between Husky Oil Limited and the governments of Alberta, Saskatchewan and Canada) was completed in November 1992. Since the start of production, the Bi-Provincial Upgrader has required funding to cover operating shortfalls. As of 30 June 1994, Canada had advanced \$28.2 million to fund its share of those shortfalls. At the time of the audit, discussions were under

way among the Joint Venturers on the future funding of shortfalls and on future options for the project.

Natural Resources Canada Comments:

On 5 August, 1994, Canada, Alberta, Saskatchewan and Husky Oil Limited announced a new financial structure for the Bi-Provincial Upgrader. Canada and Alberta agreed to sell their interests in the Bi-Provincial Upgrader to Husky Oil Limited and Saskatchewan. Canada will receive \$41.96 million for its 31.67 percent interest in the project. In addition, Canada will receive an upside interest in project revenues, if the differential between heavy oil and synthetic crude exceeds \$6.50 a barrel.

2.136 Hibernia. Since our 1992 chapter, there have been significant changes in Canada's financial obligations to the Hibernia Development Project, with the assumption of an 8.5 percent equity interest. Canada's direct involvement in this project is in the form of contributions, loan guarantees, other loans and the equity interest. As of 31 March 1994, the federal government's contribution expenditures to Hibernia totalled \$492 million and its loan guarantees had been drawn upon to a total of \$484 million. As of 31 December 1993, Canada's equity in Hibernia totalled \$69.4 million.

2.137 As an equity owner in Hibernia, Canada has the opportunity to benefit from any profits resulting from the sale of its 8.5 percent interest or from production. However, Canada is now responsible for its share of any cost overruns incurred, plus any other responsibilities that fall to the owners. Previously, Canada's financial exposure was capped by the agreements. At the time Canada acquired an 8.5 percent interest in the project, its equity investment to production start-up, based on the original 1990 estimate, was expected to total approximately \$357 million. In June of 1994 the owners

The Department should be moving with a greater sense of urgency in planning for evaluations of these projects.

The structure of CDIC and CHHC allows them to fulfil their mandate appropriately to hold, manage and fund Canada's equity investment in Hibernia.

announced that the preproduction capital cost of the Hibernia Development Project would increase from the 1993 estimate by \$1.172 billion. As a result of a previous reduction in the total estimated preproduction capital cost, and the recent cost overrun, Canada's equity investment to production start-up is now expected to total approximately \$410 million.

participation in the project and by providing monitoring of and accountability for Canada's equity investment in the Hibernia Development Project.

2.140 A memorandum of understanding among the Department of Energy, Mines and Resources (EMR), the Department of Finance, CDIC and CHHC outlines how information is to be co-ordinated and shared. The parties agreed to establish a committee as a forum to exchange information, on a regular and timely basis, on the status of the Hibernia Development Project and to consult fully on any major issues or developments concerning the project. The committee was to consist of officials of each of the parties and to be chaired by an official designated by the Minister of EMR.

2.141 However, the committee is not active. CDIC and Natural Resources Canada have informed us that they maintain informal communications on an ongoing basis. In our opinion, the agreement suggests use of a more formal method of communication.

Evaluation

2.142 In responding to our 1992 chapter, the Department noted that it was determining evaluation requirements for the megaprojects. The Department also agreed to undertake, at an appropriate time, an evaluation of the Hibernia project.

2.143 In October 1992, the Department prepared an evaluation assessment to review possible approaches to the evaluation of the energy megaprojects. The assessment recommended that both the Bi-Provincial Upgrader and Hibernia be evaluated by focussing on impacts and the achievement of objectives, a course of action that we strongly support.

2.144 The Department had planned to complete an evaluation of the Bi-Provincial Upgrader project by the end of March 1995. It now intends to reassess this plan in the light of change to the project (see paragraph 2.135 and the Department's comments). Regardless of the change, we believe it is important to determine, and account for, the results achieved with the federal money spent, as well as to identify lessons learned that may be applied in the future.

2.145 The Department has recently completed a draft evaluation framework for Hibernia. Among other things, the framework identifies the evaluation issues to be addressed and goes some way towards determining the requirements and sources for the information that will be needed to address those issues. However, the Department has not completed an assessment of the precise information it requires to evaluate Hibernia. The framework has yet to be approved within the Department.

2.146 The draft Hibernia evaluation framework does not propose a specific time for the evaluation to be completed. However, departmental officials have indicated that they plan to carry out an evaluation after oil production starts.

2.147 Given the very substantial federal investment and financial exposure in Hibernia, we believe it is important for the Department to:

- move quickly to complete and approve the evaluation framework;
- put in place additional procedures, as necessary, to collect, on an ongoing basis, information required for the evaluation; and
- assess the need for interim evaluation work that draws together available information on results to date, analyzes it and reports to Parliament.

2.148 In our opinion, it is important for both the government and Parliament to be able to assess whether Hibernia has been a good investment for Canada.

Information for Parliament and the public

2.149 The Department has improved its reporting of the financial status of energy megaprojects in Part III of the Estimates, especially in relation to the funding it provides to the projects. As well, the Department's information on megaprojects is now consolidated in one section.

2.150 Although Natural Resources Canada has improved the reporting of its share of the funding, the separation of responsibilities between the Department and CHHC for financing Hibernia creates a division in reporting. The Department's Estimates show information related to its responsibilities for Hibernia. The Department of Finance's Estimates show CHHC's appropriation for Canada's equity interest. CDIC, in its annual report, provides information about CHHC's appropriation and its ongoing investment in Hibernia.

2.151 Canada also has an indirect investment in Hibernia through its ownership of 70 percent of Petro-Canada shares. Petro-Canada is a 25-percent participant in Hibernia, and provides information on its investment in the project through its annual report.

2.152 Another important source of information on Hibernia is provided by the Annual Report of the Canada-Newfoundland Offshore Petroleum Board, which is tabled in Parliament.

2.153 Each organization reports separately on its own area of responsibility for Hibernia. Thus, if parliamentarians wish to obtain a full

It is important for both the government and Parliament to be able to assess whether Hibernia has been a good investment for Canada.

For projects of such a scale as Hibernia, a complete picture needs to be available from one source.

The Department has initiated action on all our recommendations, with varying degrees of progress.

understanding of the overall financial arrangements and exposures relating to the Hibernia Development Project, they have to examine five separate documents. In our opinion, for projects of such a scale as Hibernia, a complete picture needs to be available from one source.

2.154 The problems involved in sectoral reporting are more fully addressed in Chapter 7, Departmental Reporting of Sectoral Activities.

Department of Indian Affairs and Northern Development — Indian Forest Management — The Manitoba Northern Flood Agreement — 1992, Chapter 15

INDIAN FOREST MANAGEMENT

Background

2.155 In 1992, we reported that the Department of Indian Affairs and Northern Development (Indian and Northern Affairs Canada) needed to develop a statement delineating its own responsibilities and those of the bands for Indian reserve forests. We noted that the Indian Timber Regulations were outdated and inadequate for the proper management of Indian forests. In addition, we reported that the Department did not have adequate expertise available to enable it to discharge its statutory and fiduciary responsibilities for Indian forests, and that there was a lack of adequate information to make effective decisions about reserve lands.

Conclusion

2.156 The Department has initiated action on all our recommendations, with varying degrees of progress.

2.157 We recognized that, to address our recommendations, the Department needed to consult with and obtain the participation of First Nations and Canadian Forest Services of Natural Resources Canada. We also recognized that initiatives to address our recommendations would be time-consuming and complex. Our follow-up confirmed this to be the case. The Department needs to continue to implement our 1992 recommendations.

Observations

Clarifying statutory and fiduciary responsibilities

2.158 In its response to our chapter, the Department stated that it has legal obligations for the disposition of timber on reserves. The Department has developed a fiduciary management strategy. The strategy outlines how the Department intends to manage fiduciary responsibilities arising from managing and administering reserve lands and natural resources, including timber. However, it has not clearly stated the Department's fiduciary responsibilities and objectives in managing Indian forests. Without this statement of fiduciary responsibilities and objectives, it is difficult to assess the extent to which the Department is fulfilling its responsibilities.

Development of an Indian forestry strategy

2.159 Under the leadership of Canadian Forest Services, the Department and the National Aboriginal Forestry Association (NAFA) plan to develop a comprehensive Aboriginal forestry strategy. The

Department initiated a joint planning process with Canadian Forest Services and NAFA, but there has been no substantive progress to date.

Amendments to the Indian Timber Regulations

2.160 The Department drafted several technical amendments to the Indian Timber Regulations, which received approval from the Governor in Council in May 1993. In 1994, additional technical amendments to the Regulations are being considered. The Department is continuing to work with Indian forestry leaders to develop an alternative legislative framework for Indian forestry to put in place a modern, multi-use forestry management regime.

Expertise to discharge statutory responsibilities

2.161 The Department has undertaken some initiatives to develop appropriate expertise to discharge its statutory mandate for reserve forestry. It is finalizing a forestry policy and procedures manual and has developed courses to train staff in implementing the procedures.

Interim measures are needed

2.162 As stated in the 1992 chapter, in many cases, forests on reserve lands represent a major opportunity for the social and economic development of Indian bands. Forests are the single most important asset of many bands. However, forests on many Indian reserves are seriously depleted due to a lack of forestry management. Judging from the Department's past experience, corrective action may encounter many constraints and take a number of years to take effect. In the meantime, to protect against further depletion of forestry resources, interim measures are needed.

Department's response: The Department will continue to act on the 1992 recommendations of the Auditor General, insofar as they relate to its statutory mandate.

In addition, the Department is undertaking interim measures, in conjunction with Indian forestry leaders and the Canadian Forest Services, to promote good forest management practices for reserve forests.

THE MANITOBA NORTHERN FLOOD AGREEMENT

Background

2.163 The Manitoba Northern Flood Agreement (the Agreement) provides a framework for compensating five Indian bands for the adverse effects of hydro-electric development projects undertaken or to be undertaken by the Manitoba Hydro-Electric Board.

2.164 The parties to the Agreement, which was signed in 1977, are Indian and Northern Affairs Canada, the Manitoba Hydro-Electric Board, Northern Affairs of the Government of Manitoba, and the Northern Flood Committee Inc., an Indian corporation representing the five bands. These parties have joint and separate obligations under the Agreement, depending on the nature of their respective responsibilities.

2.165 In 1992 we reported on the Department's management and implementation of the Agreement. The Department concurred with our recommendations.

2.166 We recommended that the Department encourage and monitor compliance with the Agreement by all parties; ensure that a valid environmental assessment is performed to determine and report on the impact of the hydro-electric projects; use the environmental assessment as a basis for further

In the meantime, to protect against further depletion of forestry resources, interim measures are needed.

implementation of the Agreement; and capture and report performance information and all costs associated with the Agreement.

2.167 We also recommended that, before entering into any future agreements of this nature, the Department ensure that the obligations of each party are clearly stated. We further recommended that such future agreements contain commitments from all parties on specific matters of implementation such as progress target dates and the methods to be used to evaluate the adequacy of implementation.

Conclusion

2.168 The Department advised us that the assessment of environmental impact and other outstanding issues, such as clarification of responsibilities, are still under study and discussion. In our view, the Department ought to ensure that the performance of ongoing responsibilities and the implementation of any settlement agreements are based on sufficient and appropriate information.

Observations

2.169 The Department and the other parties have focussed their efforts on negotiating comprehensive settlement agreements with the bands to satisfy their respective obligations under the Manitoba Northern Flood Agreement. Under a comprehensive settlement approach, the Department and other parties to the Agreement seek to reach an overall final settlement agreement with each band, covering financial and other compensation for damages sustained. The purpose of such agreements is to supersede all outstanding and future claims and effectively provide a full and final release of the parties from past, present and future responsibilities under the Agreement.

2.170 As of June 1994, a comprehensive settlement had been reached with one band; comprehensive negotiations were under way with three bands; and one band, as in the past, had elected to pursue its own claims, thereby opting out of the comprehensive settlement approach. The Department's financial commitments under the one settlement agreement reached are approximately \$16 million. Comprehensive settlement amounts have not been finalized with the other three bands.

2.171 In negotiating comprehensive settlement agreements, it is fundamental that the environmental impact be appropriately assessed and used as a basis for any settlement. Without an adequate assessment of the environmental impact, the possibility remains that comprehensive settlements and their implementation may not be appropriate. It is also essential in any settlement that a clear understanding and consensus be reached on the nature and extent of each party's respective obligations under the agreements. At the time of our follow-up, the Department was continuing its efforts to address these and other issues reported in 1992.

Department's response: The Department agrees with the conclusion. While there has been little change in the environmental impacts of the Northern Flood Agreement (NFA) project since 1988, when the last report on environmental impacts was compiled, the Department is preparing a report on the years 1988–1994 prior to the end of March 1995.

The Department agrees, in principle, that it is fundamental that the environmental impact be appropriately assessed and used as a basis for any settlement. However, it should be pointed out that the objective of negotiations to implement the NFA in a comprehensive way also focusses upon what is required by the affected First

Nations to live with the impacts of the NFA project. The value of compensation under the comprehensive agreements is not determined by the damage done by the project per se but by the economic development and administrative requirements of a community to change their way of life in view of how the project has changed the environment in that part of Manitoba.

The comprehensive implementation packages, such as the Split Lake Agreement, put in place practical arrangements that will clarify responsibilities and ensure that the obligations of the parties are implemented in a manner that can demonstrably assist in improving the quality of life for members of the NFA reserves and effectively implement this recommendation.

Department of National Defence — 1992, Chapters 16, 17 and 18

Introduction

2.172 The Auditor General's 1992 Report included three chapters on the Department of National Defence (DND). Two chapters dealt with capital spending: one of them reported on industrial development initiatives and the other on project initiation and implementation. The third chapter reported on the Canadian Forces Reserves.

2.173 In general, the Department of National Defence's response to the chapters has been to study and propose possible solutions to the problems that we raised. It has taken action on some issues.

2.174 We have found that while the Department of National Defence has generally concurred with our recommendations, it takes a long time to

implement improvements. It has completed action on only 44 of 79 recommendations made in our reports from 1984 to 1990 (see Exhibit 2.3). Although 35 recommendations remain incomplete, action has been taken on satisfying many of them. In some cases, action cannot be considered complete until the new Canadian Forces supply system is in place. It takes a similar length of time to react to its own studies, as Chapters 24 and 27 of this Report illustrate.

Major Capital Projects — Industrial Development Initiatives — 1992, Chapter 16

Background

2.175 Achieving value for money in major capital projects entails three major objectives: meeting operational requirements in the most cost-effective manner; achieving cost-effective, long-term industrial and regional development; and achieving other national objectives. The 1992 chapter addressed the interplay between the first two of these objectives.

2.176 National Defence is responsible for defining the most cost-effective way of meeting its operational requirements. Industry Canada is the lead department responsible for achieving cost-effective industrial development.

2.177 In our 1992 Report, we noted that government procurement policies were not being followed and made several recommendations. The recommendations were to improve strategic planning, to provide decision makers with adequate analyses of costs and benefits, to share costs of the initiatives among the relevant

departments, and to improve information reported to Parliament.

Conclusion

2.178 Since our 1992 Report, departments responsible for industrial initiatives have reviewed industrial and regional benefits policy and practices, and consulted with industry. However, Industry Canada has yet to fully respond to our recommendations.

Observations

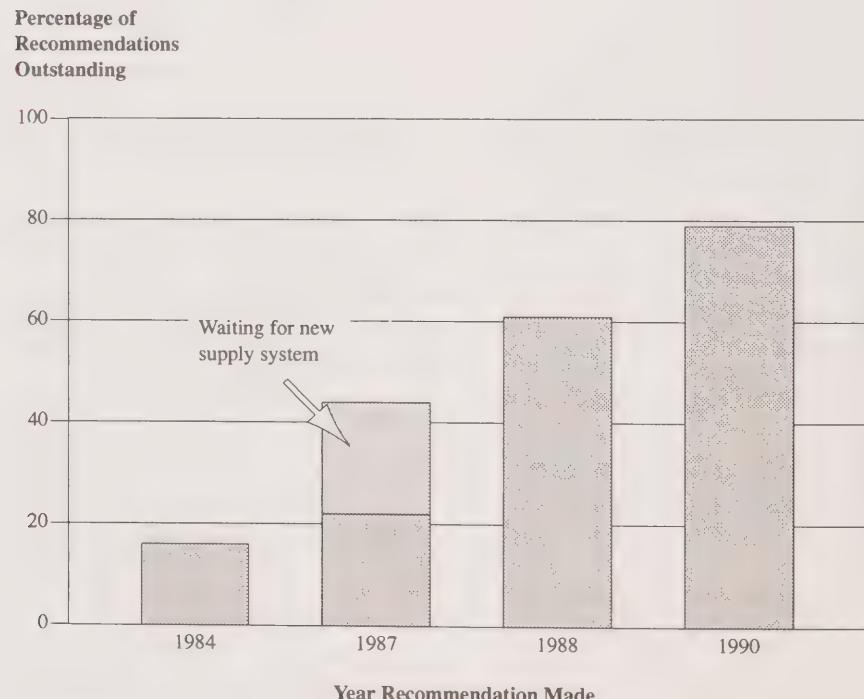
2.179 Our follow-up has identified that Industry Canada has pursued what a draft departmental report calls an “opportunistic strategy” for industrial benefits. Under this strategy it is difficult to provide an advance assessment of the benefits and costs of the initiatives due to the uncertainty concerning what companies will offer in their proposals.

2.180 Since 1992, studies by Industry Canada and other parties have confirmed the need for a different strategic approach to industrial development. In response to our Report, Industry Canada initiated a policy review by a task force, which completed a draft report in July 1992. The federal government’s Prosperity Initiative in 1992–93 provided additional feedback from industry and led to further interdepartmental consultation. An interdepartmental working group carried out a review and analysis of the government’s industrial benefits policy. The resulting report, “Federal Procurement in the 90s”, summarized most of the issues pertaining to benefits policy and practices, and recommended changes. A recent draft report by Industry Canada reviewed previous work and recommended that separate strategies be developed for the various industrial sectors. In response to these studies, Industry Canada has streamlined its reporting requirements for industrial

Exhibit 2.3

Recommendations Outstanding

National Defence has not finished acting on many of our recommendations.



initiatives, but has done little else to change departmental policies and procedures.

2.181 We could not determine whether decision makers are receiving better information on the costs and benefits of initiatives, as the government has not approved any new major Crown projects since 1992. Thus the opportunity for Industry Canada to take action in this area has been limited.

2.182 In 1992, we identified the need for increased monitoring and auditing of projects and better reporting to Parliament on industrial development initiatives. We note that since 1992, Industry Canada has devoted fewer resources to monitoring existing projects. We also note that the various departments responsible for industrial initiatives remain unco-ordinated in their reporting to Parliament on individual projects.

Major Capital Projects — Project Initiation and Implementation — 1992, Chapter 17

Background

2.183 Our 1992 chapter on the initiation and implementation of capital projects examined the effects of defence program management system's policies and procedures on achieving value for money in major capital projects. We found that defence program management was suffering due to the lack of a stable Canadian Forces strategic plan, that there was a lack of information for managing the defence program, and that the purchasing of spare parts for new equipment could be improved.

2.184 We recommended improvements in Canadian Forces long-term strategic planning and in the day-to-day management systems of the overall capital program. We also recommended that a system of priorities be established for the entire Defence Services Program, and suggested that the Department reconsider its practice of buying initial stocks of spare parts from its prime contractors.

Conclusion

2.185 National Defence has acted to address our recommendations, but some activities are not yet complete and the action taken may be inadequate. Our 1994 chapters on Information Technology (Chapter 25) and Infrastructure Management (Chapter 27) point to continuing problems with the project and program management systems.

Observations

2.186 The Department met the requirement for a stable long-term strategic plan with the approval of the "Defence Development Plan" in 1993. The plan translates defence policy commitments into a force structure and is supposed to provide a 15-year strategic plan for capable and affordable armed forces. Its aim is to detail the force structure deemed most capable and affordable; provide the necessary guidelines for resource planning to effectively man, equip, house and sustain that force structure; and provide a framework to guide the implementation of the force structure. The Department will also work to review and update the development plan as national or international events dictate. Except for reservations about its overall price (see paragraphs 24.39 to 24.45) and its comprehensiveness (see paragraphs 24.27 to 24.38 and 26.26), the plan meets the intent of our 1992 recommendation.

The Department met the requirement for a stable long-term strategic plan with the approval of the "Defence Development Plan" in 1993.

Industry Canada has streamlined its reporting requirements for industrial initiatives, but has done little else to change departmental policies and procedures.

2.187 Our chapter found that the Defence Program Management System generates an enormous staff workload and that the program control process did not effectively track changes to projects. The Department has included several changes to the Defence Program Management System, which provide more guidance for day-to-day management of the program. The Department also has measures and processes in place intended to bring significant changes in project costs and scope to the attention of senior management in a timely fashion. However, our chapter on Information Technology (paragraph 25.56) indicates that these problems continue to exist.

2.188 Since our recommendations in 1992, the Department has also redesigned the Defence Services Program Information System. The system records the details of individual projects as project documents are circulated and approved. Information from project offices that used to take four to six weeks to be incorporated into the system is now entered automatically or, if manually, in less than one week. Program management staff now have direct access to the system and update it regularly. Several of the project offices will also have direct access to the system in the near future. Although the information system appears to be significantly improved, we are concerned about the quality of some of its data, particularly the data related to information technology projects (see paragraph 25.46).

2.189 The Department has made progress in establishing a priority system for the entire Defence Services Program. It now has criteria to assign priorities to projects among the Maritime, Land Force and Air Commands, as well as within the environmental command structure. The criteria for ranking priorities among the environmental Commands include

operational need, safety, government direction, international agreements and strong business cases. These criteria were helpful to program managers in determining which projects to postpone as a result of the February 1994 budget cuts. Nonetheless, more guidance is needed on how to assess the benefits offered by some projects and the opportunity cost of delaying their funding (see paragraph 25.52).

2.190 In 1992, we suggested that National Defence and Supply and Services Canada consider buying spares directly from the manufacturers of the original equipment instead of from the prime contractor as is the current practice. We also pointed out the benefits of conducting a value engineering analysis during the specifications process.

2.191 Since then the Department has made progress by completing some value engineering analyses. The Department has also made progress by expanding its "Buy Our Spares Smarter" program. This program obtains price comparisons for spare parts submitted for review. Over 4,500 items have been reviewed under the program, contributing to savings of almost \$10 million. Still more money could be saved if National Defence increased its efforts to realize savings that the program has identified.

The Canadian Forces Reserves — 1992, Chapter 18

Background

2.192 Our follow-up focussed on recommendations from our 1992 Report in seven areas: Reserve Force planning, human resource management, training, equipment, facilities, readiness and accountability.

2.193 In our 1992 Report, we noted that the Department needed to address the definition of cost-effective roles for the Reserves. Clearly defined, appropriate roles lead to effective human resource structures and policy, training, equipment and facilities; they also provide good indicators to determine and communicate levels of military readiness. Defining appropriate Reserve roles is a key element in having cost-effective Reserves.

Conclusion

2.194 Our follow-up audit found a varied response to our recommendations. The Department continues to define and implement Total Force Reserve roles according to unique command environments. Responses to our 1992 recommendations therefore varied by command, and the specific nature of Total Force implementation in that command. In general, the Department has taken limited action in response to our recommendations.

Observations

Reserve Roles and Organizational Structure

2.195 The Militia is the largest component of the Primary Reserve with 73 percent of the personnel budget during 1994-95. Land Force Command has extensively studied solutions that we believe would satisfy many concerns arising from our 1992 audit. Those solutions include rationalizing Militia roles, force structure and unit organization. However, the Command has decided not to take complete action on the proposed solutions, pending completion of the 1994 Defence Review and clarification of the Land Force's role in national defence policy. Until the Command is able to take appropriate

action, the Militia will continue to provide only limited military capability. We intend to conduct additional follow-up work on the Militia in 1995.

2.196 In our 1992 Report, we noted the need for appropriate cost information on the Reserves. Additional cost information is needed to support Reserve decision making at all levels, but particularly when Reserve roles are being decided. Since 1992, the Department has done cost studies to support specific decisions and, in some cases, new Reserve efforts are being field-tested to determine their costs before full implementation. Although the Department is trying to include costs in Reserve decision making, departmental systems may not identify all the costs necessary to support the Department's decisions (see paragraph 24.70).

2.197 Our 1992 Report also recommended that the Department make greater effort to ensure that Reserves are available for training and emergencies. After studying the issue, the Department has acted to strongly support the National Employers Support Committee, now called the Canadian Forces Liaison Council. This council has a mandate to promote the Reserves so that employers will grant leave-of-absence for training without loss of job promotion and vacation time, and to encourage the hiring of Reservists. The Council reports that it has approached thousands of employers and, over an 18-month period, its list of employers offering their general support has grown from 20 to more than 1200 names. In 1996, the Council expects to carry out a fundamental review of its program and report on the program's results to senior departmental management.

2.198 Land Force Command has rejected, as a concept and in practice, the assignment of operational roles, tasks or

In general, the Department has taken limited action in response to our recommendations.

The Department has acted to strongly support the National Employers Support Committee, now called the Canadian Forces Liaison Council.

missions to individual Militia units. Instead, Militia units are to be assigned specific training missions that will allow individual unit members to augment the Regular Force. To implement these training missions, and to solve a continuing rank-qualification problem and a disproportionate ratio of officers to non-commissioned members, the Command has proposed "total army establishments". These new establishments would provide a standard for all army units. Based on the size of the units, the Militia would have the same unit establishments, or organizational structure, as their respective functional counterparts in Regular Force units.

2.199 At this stage, it is too soon to determine if "total army establishments", based on Regular Force organizational and rank structures, are the most efficient way to achieve a training mission in a Reserve unit of part-time volunteers. No trial of this new model is being planned. However, the Command expects to implement the structure over the next three years.

2.200 Over the last two years, Communication Reserve has reviewed and expanded its roles. Reserve units will not have operational roles but will be expected to provide trained members to perform tasks. In addition to individual augmentation, Communication Reserve plans to start providing small groups of people trained to meet specific tasks. This provision should serve as a basis to review the establishments and organizational structure.

2.201 Communication Reserve intends to improve the efficiency of unit organization and establishments by restructuring and standardizing the units. A "standard model unit" has been developed for all units providing augmentation personnel. The tasks of

these units should be finalized in the fall of 1994. The size, manning level and rank structure of each unit will be examined and matched with its ability to meet task requirements. The standard model unit is being field-tested at several locations; its results will be evaluated in 1995-1996 to determine its operational effectiveness and efficiency.

2.202 The Naval Reserve is in the process of conducting a complete review and reorganization of the Naval Reserve Establishment, which it plans to complete by the end of 1994. The proposed establishments for the Naval Reserve are based on assigned operational roles, which is a significant change from the Total Force augmentation role assigned to the Naval Reserve in 1991. A major effort is being made to rationalize requirements and establishments in Naval Reserve Divisions. We were not able to assess the adequacy and efficiency of the proposed changes. The Naval Reserve told us that it intends to monitor the implementation of the new establishments over the next year.

2.203 The Air Force is also revising roles for the Reserves with the development of new Airfield Engineering Squadrons. Officials told us that Reserves will be providing almost half the personnel for three new squadrons in support of contingency deployment plans.

Reserve Occupational Structure

2.204 The Canadian Forces occupational structure identifies the aggregate skills and knowledge necessary to do the jobs required by the Canadian Forces. In 1992, we reported that the Reserve structure was deficient. Over the past two years, the Department has undertaken a review of its policies and procedures with the objective of meeting the "Total Force" occupational structure

requirements. A draft paper has been produced, but senior management has not yet approved it.

2.205 In 1992, we also pointed out that specifications outlining the duties, tasks and skill levels for each occupation were generally poor in quality or non-existent. The Department has responded by reviewing the 143 occupational specifications in the Canadian Forces, and by developing the Canadian Forces Integrated Occupational Specifications. Those specifications detail the job requirements for all Forces components including the Reserves. Updating occupational specifications and converting them to the new format is scheduled for completion in 1997-1998, assuming the current resource arrangements continue.

2.206 The Reserve occupational structure is composed of 27 officer occupations and 38 other rank occupations. As of July 1994, about 18 percent of Reserve occupations had been updated and converted to the new format. About 37 percent of the Reserve occupations are at various stages of the conversion process and about 45 percent are outdated or lack specifications.

2.207 As we reported in 1992, the application of the Total Force concept to personnel functions, such as promotion, is still not adequately defined. There is no clear definition of the kind of qualifications and experiences that are required of members at each rank level of the Reserves to achieve its mission. Reserve officer promotion policies have not been updated over the last 16 years, and policies for non-officers were written seven years ago, before the adoption of the Total Force concept. The qualification levels and the time-in-rank criteria are still formulated to seem identical to those of the Regular Force, but actually bear no resemblance to them. For instance, the

time-in-rank prerequisite is stated in calendar time for both components, although the Regular Force has a full-time commitment while the Reserve Force is composed of part-time volunteers with no actual attendance obligation. The Department is currently undertaking a Primary Reserve Career Management Study in which several Reserve promotion concerns are examined and major improvements are expected to receive departmental approval in the coming year. However, the study has not yet adequately addressed the key issue of the type and length of experience necessary to meet operational requirements at each rank level, for each command environment.

The Naval Reserve is in the process of conducting a complete review and reorganization of the Naval Reserve Establishment, which it plans to complete by the end of 1994.

Reserve Recruiting

2.208 The Department accepted and has sought to act on our 1992 recommendations on recruiting. It reports that older, more skilled people are now being targeted for recruitment, but that progress has been inhibited by the downsizing in the Regular force and by reductions in recruiting funds. In 1992, we observed that targeting more skilled people should reduce training costs and costs due to attrition.

Departmental officials told us that some individual Reservists are now at a high level of readiness due to the amount of Regular Force training they have undergone for peacekeeping missions.

Reserve Training

2.209 We did not do a complete assessment of training to determine the Department's progress; nor did we assess its progress in improving the efficiency of training delivery. We also did not completely assess training at Communication or Air Command because these areas were not examined in that part of our 1992 audit.

2.210 In 1992, we said that existing training standards and objectives were inadequate and poorly applied. The Militia has not yet been able to realign its training because, as mentioned previously,

The application of the "Total Force" concept to personnel functions, such as promotion, is still not adequately defined.

the Department is still trying to define Militia roles and establishments and is still developing integrated occupational specifications.

2.211 Departmental officials told us that some individual Reservists are now at a high level of readiness due to the amount of Regular Force training they have undergone for peacekeeping missions. Land Force Command also expects that its devolution of training responsibility to Area Commands, and its new Warrior Program, which is now being field-tested, will enhance the basic combat readiness of the Militia.

2.212 Naval Reserve roles and training objectives are much more developed, but the Naval Reserve training is also being affected by the slowness in the development of integrated occupational specifications, which are the basis for developing training standards and programs. In addition to a better definition of roles and the development of establishments, Maritime Command is making progress in validating its training, and expects to have all courses validated by 1996.

Equipment and Facilities

2.213 In 1992 we recommended that Reserve equipment acquisitions be part of a long-term affordable force structure plan, and said that individual equipment projects could be managed better. The Department addressed the first point with the 1993 approval of the Defence Development Plan, except for the question of its overall cost (which is discussed in Chapter 24). It addressed the second point by amending its internal procedure manuals to clarify the roles of key project personnel, thereby improving the likelihood of compliance with departmental policies.

2.214 The Department has not yet completed a strategic plan for Reserve facilities, as we recommended in 1992. The Department expects that detailed Reserve requirements will be developed after further refinement to the Defence Development Plan and completion of a Land Force Infrastructure Development Plan. However, Defence Information Services Organization (formerly Communication Command) has already incorporated a Reserve facilities assessment into its development plan, and has a capital project to take corrective action. Other commands have yet to complete similar action.

2.215 In our Report we noted that Land Force Command did not have a rationale for existing Militia units and that Militia replacement construction was proceeding without adequate justification. Since our Report, commands have continued to bring forward Militia armoury projects and the Department has continued to complete projects.

2.216 Chapter 27 of this Report, on National Defence Infrastructure Management, confirms that many problems we identified in Reserve construction were found generally for all departmental construction projects.

Supplementary Ready Reserve

2.217 The Supplementary Ready Reserve is a group of former Canadian Forces members and individuals with special skills who can assume a military role in times of emergency. In 1992, we noted fundamental problems with the Supplementary Ready Reserve and a lack of value for money. Since our Report, the Department has made further studies of the Supplementary Ready Reserve and individual commands have taken steps to improve the Supplementary Ready Reserve's efficiency and effectiveness. However, the commands are only now

reaching a limited consensus on the future of this Reserve. The Department is also waiting validation of the Supplementary Ready Reserve concept by the 1994 Defence Review.

Reserve Accountability and Reporting

2.218 We could identify no comprehensive review of organizational accountability for the Reserves, as we recommended in 1992. However, Land Force Command, Communication Command and Air Command have continued to integrate Reservists into their headquarters structures, while Maritime Command has plans to do the same. This action should lead to greater awareness of Reserve issues at the headquarters level. In addition, Land Force Command has continued to develop its area headquarters concept. Under that concept, individual area commands are held responsible for all the land forces in their respective areas, whether Regular or Reserve. Although the Department has not undertaken a comprehensive review of organizational accountability, it has taken some steps to improve the awareness of Reserve issues at headquarters levels.

2.219 The Department has made little progress in reporting Reserve cost-effectiveness in Part III of the Estimates. For example, it continues to report the paid ceiling of each command. We reported that paid ceiling was an extremely poor indicator of available military manpower. The Department is providing little meaningful information to Parliament while increasing its reliance on a component of the Canadian Forces that has undisclosed performance problems. The Department expects that after 1996, its business planning initiatives should eventually improve reporting to Parliament.

Department of National Revenue — Customs and Excise — Special Import Measures Act — 1992, Chapter 19

Background

2.220 The *Special Import Measures Act* (SIMA) is a law that protects Canadian industries from two sources of unfair trade. The first source is "dumped" goods. Dumping refers to the selling of foreign goods to Canadian importers at prices lower than their home market prices or their costs of producing and selling the goods. The second source of unfair trade is goods imported into Canada which have been "subsidized" through an economic incentive program sponsored by a foreign government. A Canadian manufacturer or producer who has evidence that the dumped or subsidized foreign goods have "injured" its business may request Revenue Canada to investigate the matter further.

2.221 Our 1992 chapter contained observations and recommendations in the following areas: consideration of injury during the investigation stage; monitoring of undertakings; program evaluation; and limitations resulting from technical aspects of the legislation.

Conclusion

2.222 Revenue Canada and the Department of Finance have made reasonable progress responding to our recommendations. The Department of Finance expects that the *Special Import Measures Act* will be amended in 1995 to reflect the recent changes to the General Agreement on Tariffs and Trade (GATT) that have come as a result of the Uruguay Round of Multilateral Trade Negotiations

The Department is providing little meaningful information to Parliament while increasing its reliance on a component of the Canadian Forces that has undisclosed performance problems.

Amendments to the *Special Import Measures Act* will occur as a result of the new General Agreement on Tariffs and Trade and the Department of Finance's own internal review.

Customs shifted responsibility for monitoring undertakings to the regions.

(MTN). It is anticipated that the GATT-based changes to the SIMA legislation will address some of the concerns identified in our 1992 audit while others will be addressed during the Department of Finance's own review of the Act (see below).

Observations

Injury determination

2.223 In order for a case to be opened, Revenue Canada must have evidence that the goods have been dumped or subsidized and that these practices have caused injury to the Canadian manufacturer or producer. Injury is often evidenced by a decline in sales, market share or profits; price erosion or suppression; a drop in employment levels; negative growth; and decreased utilization of production capacity. The Department evaluates information supplied by the complainant (a Canadian manufacturer or producer) when determining whether there is a reasonable indication of injury.

2.224 In 1992, we recommended that Revenue Canada maintain a broader perspective to give greater consideration to the injury sustained by the complainant during the investigation stage leading to a preliminary decision.

2.225 Once the Department makes a preliminary decision on a case, it issues a "Statement of Reasons". Since the audit in 1992, the Department has revised the document to better demonstrate its work completed in considering the evidence of injury.

2.226 In our 1992 audit we noted that, at the early stage of an investigation, interested parties have the right to refer a case to the Canadian International Trade Tribunal to determine whether an investigation is warranted on the grounds of injury. Under the current legislation,

once the Tribunal confirms that the evidence discloses a reasonable indication of material injury, the Deputy Minister of National Revenue must treat the issue of injury as settled, even if evidence obtained later raises doubt about the earlier finding. However, the proposed changes to the SIMA legislation to implement the MTN results envisage that the Deputy Minister will no longer be precluded from further consideration of the injury issue in light of additional evidence.

Undertakings

2.227 Undertakings are an alternative method for exporters or foreign governments to resolve the injurious action they have caused. Instead of proceeding through a full investigation, the exporters responsible for dumping goods into Canada agree to increase their prices to a level which eliminates the injury to the Canadian manufacturer or producer or eliminates the dumping. Likewise, the foreign government can eliminate the subsidy or limit the volume of subsidized goods, thereby removing the injurious effect.

2.228 In 1992, we recommended that Revenue Canada implement a plan to monitor undertakings more closely. Since that time, the Department has shifted additional responsibility to the regions for the monitoring of several undertakings. This results in more timely monitoring of undertakings and has other advantages since regional offices are more familiar with the various goods that are being imported into their region and they often have closer ties with the local importing community.

2.229 Although undertakings are a less costly alternative to the full length proceeding they can easily be vetoed and terminated at any time by any interested party. In 1992, we recommended that the Department of Finance consider, if

appropriate, amendments to the SIMA provisions concerning the veto of undertakings. The Department of Finance indicated that this would be addressed in its review of the Act.

Review of the Special Import Measures Act

2.230 The Department of Finance is responsible for the SIMA policy and legislation. Since the inception of the Act in 1984, a formal evaluation of the program had not been completed although Finance had established preliminary plans to complete a review.

2.231 In 1992, we recommended that the Department of Finance resume and complete its formal evaluation of the *Special Import Measures Act*. In August 1993, the Department of Finance advised Revenue Canada, the Canadian International Trade Tribunal and other interested departments of the initiation of the review. The Department of Finance has worked with Revenue Canada, the Tribunal and other interested departments to identify the pertinent issues. Some of the issues identified will be addressed by the Omnibus Trade Bill from the Multilateral Trade Negotiations while the others will be earmarked for the review of the *Special Import Measures Act*.

Department of National Revenue — Customs and Excise — Goods and Services Tax: Registration and Related Sub-Activities — 1992, Chapter 20

Background

2.232 Our 1992 audit of the Goods and Services Tax (GST) focussed on

registration and response to requests for information from the public. We also examined simplification, particularly with respect to small business, and reports of GST implementation costs to Parliament. During our follow-up, we reviewed a status report prepared by Revenue Canada explaining the action it has taken on our observations and recommendations. We conducted interviews and reviewed related documentation to assess the extent of the progress.

Conclusion

2.233 We found that the Department has taken action on all of the recommendations and observations in our 1992 chapter. Progress is continuing in improving the accuracy and completeness of registration information and in implementing new initiatives for small business. However, further work needs to be done in certain areas.

Observations

Registration

2.234 In 1992, we observed that most of the registration staff were occupied with follow-up and maintenance of the initial registration program. This limited their capacity to actively identify new registrants. We recommended that the Department ensure a proper balance between registrant identification and maintenance functions. The Department subsequently strengthened the registration program, by decentralizing the registration function from regional to district offices and by increasing the number of registration staff. We found that there is an increased focus on ensuring the correctness of information gathered, including Standard Industrial Classification (SIC) codes from new registrants. However, additional steps are required to ensure the completeness and

The Department strengthened the registration program.

accuracy of annual sales amounts and SIC codes for existing registrants. The Department stated that, starting in January 1995, SIC codes will be assigned by Statistics Canada for new "single business registration number" registrants (those having a common registration number for Taxation, GST and Customs). Existing registrants will remain the responsibility of Revenue Canada.

2.235 In order to better identify registrants, we also recommended that the Department facilitate a further exchange of information and techniques with other taxing authorities. Exchange-of-information agreements have been initiated with the provinces; eight have been finalized and two are nearing completion. The Department is also involved in finalizing co-operation agreements with the provinces, which deal with underground economy initiatives.

Information to Registrants

2.236 In 1992, we noted a high volume of telephone enquiries and written requests for information from registrants. We recommended that the Department periodically analyze the reasons for the volume of telephone enquiries, with a view to identifying measures to reduce the demand. We also recommended that the Department consider means to prioritize written requests and explore ways to better inform users of changes. Our follow-up found that the volume of telephone requests, walk-in requests and written requests remains high due to the flow of new registrations and cancellations and to the legislative changes that were introduced. Actual telephone enquiries were 1.6 million in 1992-93 and 1.7 million in 1993-94. Walk-in requests increased from 147,000 in 1992-93 to 175,000 in 1993-94. The Department has taken appropriate

measures to cope with the volume of registrant enquiries, through staff training, experience and improved telephone systems. In fact, the actual response rate for telephone enquiries was 87 percent, considerably better than the planned target of 75 percent. On a national basis, written requests continue to be assigned on a first-come, first-served basis. Brief instructions have been included in the 1994-95 planning guidelines indicating types of requests carrying a higher priority.

2.237 In order to minimize the number of requests for information, we recommended that the Department of Finance be informed of the difficulties caused by the significant delay in enacting amendments concerning the GST. Over the past two years, Revenue Canada has provided support and assistance to Finance in advancing proposals for legislative amendments that were included in Bills C-13 and C-112.

Simplification and the Small-Business Sector

2.238 Our 1992 report noted that most registrants are from the small-business sector, and that streamlining administration for this sector has the potential for significant gains in efficiency to both the registrants and the Department. We recommended that the Department continue its efforts to address issues arising in the small-business sector, and compile revenue and cost data to support analysis of the appropriate treatment of small suppliers. Our follow-up found that the Department had taken a number of steps to address this recommendation, such as active promotion of annual filing; a revamped quick method of accounting; a simplified combined annual return; default annual filing; a simplified tax credit calculation; and temporary cessation of filing for registrants with seasonal

The Department has taken a number of steps to address issues arising in the small-business sector.

business activity. However, these steps have not yet resulted in much reduction in the workload associated with the significant number of registrants from the small-business sector. For example, as of March 1994, approximately 59,000 registrants were using the Quick Method of Accounting, whereas the number potentially able to use that method exceeds 1 million. In addition, more than 1.5 million registrants eligible to file annually continue to file quarterly. As well, approximately 26 percent of the registrant population consists of small suppliers having less than \$30,000 in annual sales and, consequently, have registered voluntarily. The Department stated that businesses often have legitimate reasons for not opting for some of the simplification initiatives that were introduced.

Accountability and Reporting

2.239 In 1992, we recommended that the Department address the needs of the main users of the GST automated system, and consider means to improve its accountability and reporting on this major Crown project. According to the original agreement with Treasury Board, the Department was to have submitted seven progress reports by September 1993. Instead, only two progress reports were submitted, with a final report submitted in November 1993. The final report reviews overall GST development to date and indicates that the project is complete, except for a number of initiatives currently in progress to improve the reporting and accountability for the GST. These remaining initiatives will be blended in with the ongoing integration activities of the Department.

Royal Canadian Mounted Police — Provincial and Municipal Policing — 1992, Chapter 22

Background

2.240 In 1992, we reported that the Royal Canadian Mounted Police (RCMP) could improve the efficiency of its provincial and municipal policing operations in a number of areas. We also reported that the federal government needed to improve the financial management of RCMP policing contracts and to provide better financial information to Parliament on these contracts.

Conclusion

2.241 The RCMP and the Department of the Solicitor General have initiated corrective action on all recommendations. However, most of the corrective action and related projects had yet to be completed at the time of this Report.

Observations

2.242 **Cost sharing.** A study by the Department of the Solicitor General is ongoing to determine the total cost incurred by the federal government for the provision of the RCMP contract police services. The Department has yet to establish mechanisms to ensure an adequate review of the RCMP's billing practices. We have noted inaccuracies in the RCMP's billing to the provinces for 1992-93, the first billing under the new 20-year contract. The RCMP has issued a corrected billing. This latter billing corrected some inaccuracies and the remainder are being addressed.

2.243 **Policing operations.** As part of its ongoing activities for the general

implementation of the community-based policing concepts across the Force, the RCMP is studying ways to implement differential response strategies in its management of calls for service. It is also carrying out studies on the 12-hour shift scheduling practices in detachments ("E" Division) and on its case ("occurrence") reporting requirements. We note that federal, provincial and municipal budgetary constraints are exerting pressure on the RCMP to reassess the delivery of its police services and to find ways to improve the efficiency of its operations.

2.244 The RCMP has progressed on another important project with the completion of the development of its Computerized Integrated Information and Dispatching System (CIIDS). The RCMP aims at completing the installation of CIIDS in the lower mainland of British Columbia in 1994-95. It anticipates that, where appropriate, the installation of CIIDS in the rest of the country should be completed over the next five years.

Royal Canadian Mounted Police — Human Resource Management — 1992, Chapter 23

Background

2.245 In 1992, we reported on the RCMP's human resource management systems and practices concerning its uniformed members. We reported that the RCMP needed to improve its human resource planning, recruit selection and training, refresher training, career management and member physical and psychological health. We also noted that the RCMP had major initiatives addressing those issues.

Conclusion

2.246 The RCMP has continued with its major initiatives, and corrective action has been ongoing for all issues raised in 1992. In many cases, that action is still continuing at the time of this Report.

Observations

2.247 Civilianization. The RCMP has made progress on its civilianization project. It has revised the definitions of the Force's three categories of employees. It has also set up a working group with a mandate to review the classification of positions, that is, to determine whether a uniformed member, a civilian member or a public service employee is to occupy a given position. That group aims to make recommendations to RCMP management in the fall of 1994 concerning the full implementation of this project, which is expected to take a period of time.

2.248 In the meantime, while the Force has converted a few uniformed member positions to civilian member or public service employee positions, it is not yet in a position to evaluate the total potential savings that may be realized through civilianization.

2.249 Recruit selection. The RCMP has made significant progress in the selection and screening of potential recruits, with the institution, in 1993, of new management tools and procedures. However, the Force still needs to further improve its current Recruit Selection Test. It also needs to compile and analyze appropriate data to assess the effectiveness of its recruiting, screening and selection processes. The RCMP has plans to address those remaining issues.

2.250 Training. The RCMP has resolved many training issues; the others are being or have yet to be addressed. For example, the Force plans to revise its

Recruit Field Training programs and orientation packages in the fall of 1994. Recently, the RCMP completed an evaluation of its Second Language Training Program, of which the Recruit Official Languages Training Program is an important component. The management of the Force is reviewing the recommendations arising from that evaluation.

2.251 Psychological Health. The RCMP reports an increase in the use by members of its emotional health programs and it perceives a basic change in the members' attitude toward receiving psychological help. However, the Force has yet to evaluate the effectiveness of its emotional health programs for members. The Force also notes that its national statistics on psychological services and its member assistance program are incomplete. The Force is currently examining what data need to be collected for carrying out such evaluation.

Federal Emergency Preparedness — 1987, Chapter 15, 1989, Chapter 27 and 1992, Chapter 24

Background

2.252 We reported to Parliament on federal emergency preparedness in 1987, 1989 and 1992. The focus of this follow-up audit is the status of preparation of the National Earthquake Support Plan, which primarily concerns dealing with the consequences of a possible catastrophic earthquake in lower British Columbia.

2.253 We expressed our concern about the status of federal emergency response plans in our first report to Parliament on federal emergency preparedness in 1987

and subsequently in 1989. One of the major findings of those audits was the absence of clear goals and deadlines to complete federal emergency plans. We were concerned that the delays in developing co-ordinated plans for major emergencies would reduce the speed of the emergency response, which is a critical factor in saving lives and protecting property.

2.254 In 1990, the Standing Committee on Public Accounts recommended to the House of Commons that Emergency Preparedness Canada complete a National Earthquake Support Plan as soon as possible in conjunction with provincial authorities.

2.255 Our 1992 audit found that a National Earthquake Support Plan was nearing completion but that it was a framework for detailed planning rather than an operational plan.

Observations

2.256 We asked Emergency Preparedness Canada to provide us with information on the current status of the Plan. In March 1994, Emergency Preparedness Canada informed the Office that CANATEX II, the first major test of the National Earthquake Support Plan, would take place as scheduled in May 1994 and that a comprehensive evaluation of the exercise would be available relatively rapidly after the test. We were also informed that the Plan was expected to lay the groundwork for a generic plan to co-ordinate a nation-wide federal response for major civil disasters.

2.257 British Columbia has the lead role in response to a major earthquake in its Lower Mainland; the national government's role is to co-ordinate federal support to the affected province(s) or territory(ies). The aim of CANATEX II was to "test the National Earthquake

Past audits have identified opportunities to improve performance of centralized procurement and banking and accounting services.

Support Plan for British Columbia and its interface with the British Columbia Earthquake Response Plan".

2.258 The national objectives of the CANATEX II exercise were:

- to evaluate the federal Plan's effectiveness to assist British Columbia regarding the effectiveness of the emergency structures and systems; consultative procedures associated with the activation, implementation and operation of the Plan; national crisis management operation and communications; the interface between the National Plan and earthquake arrangements of British Columbia and Alberta; and other emergency preparations.

- to provide provincial and federal departments and agencies in British Columbia and Alberta with an "opportunity to evaluate their joint and several response and support arrangements and interfaces with the national structures, procedures and systems."

2.259 Emergency Preparedness Canada plans to complete its evaluation of CANATEX II by the end of September 1994. We plan to review the evaluation.

Public Works and Government Services Canada: Procurement and Accounting Services — 1987, Chapter 11, 1988, Chapter 16, 1989, Chapter 21, and 1991, Chapters 18 and 19

Background

2.260 Since June 1993, Public Works and Government Services Canada has

provided the centralized procurement, and the banking and accounting services of the government. Between 1987 and 1991, we conducted a series of audits that identified opportunities to improve four aspects of the performance of these services, then operated by the Department of Supply and Services. There were opportunities to:

- achieve more fully the public purposes of centralized procurement;
- weigh more carefully the costs and benefits of secondary objectives of procurement activities;
- improve productivity; and
- improve systems development capability.

A senior official describes below the context in which the Department has sought to realize these opportunities:

The period since these performance opportunities were identified has been a turbulent one for the Public Service in general and Public Works and Government Services Canada in particular. Public Service 2000, and its theme of empowerment of line managers; a revised Treasury Board Common Services Policy, which favours optionality; and, the creation of quasi-commercial Special Operating Agencies have introduced, in a somewhat tentative manner, a new administrative model composed of mostly autonomous departments managed within a fairly loose administrative framework. At the same time, the demand for openness, integrity, consistency and simplicity in government administration, generated by increased public scrutiny of government, Canada's obligations under international and internal trade agreements, and the possibilities offered by information technology, suggest the continuation and strengthening of centralized administrative services. The effective use of government procurement as an instrument of social and economic

development also demands strong policy and administrative direction.

The Department has had to steer a course through this shifting and confused landscape. In doing so, it has been guided by a belief that sound procurement practice, encompassing integrity, openness, value for money, and the government's broader social and economic goals, must be an objective shared by all parts of government. In the event of conflict, the Department finds itself in the unfortunate position of front line enforcer. Such a position is consistent, however, with the Department's accountability for the procurement process.

Scope and limitations

2.261 We prepared this report by discussing progress with departmental officials, reviewing and analyzing departmental data and documents and comparing and analyzing information from different sources. This process of enquiry, discussion and comparison, unless otherwise stated, enabled us to confirm the plausibility of the information presented. We have not, however, conducted a full audit of departmental performance in these areas.

Conclusion

2.262 The Department has introduced many initiatives as part of its overall strategy for improvement, which generally respond to our observations of 1987–1991. Once these initiatives have been fully implemented — for example, when computer systems become fully operational — significant improvement may occur. Departmental officials report some important progress has been made, which is at a point where adding audit assurance to their reports would add value.

Observations

Achieving the public purposes of centralized procurement

2.263 Each year the government spends about \$15 billion (1992–93) on goods and services. This represents 11 percent of total government expenditures, excluding interest payments on the public debt. Government policy is to contract for these goods and services in a manner that will:

- meet operational requirements of user departments;
- stand the test of public scrutiny in matters of prudence and probity, facilitate access, encourage competition, and reflect fairness in the spending of public funds; and
- where appropriate, support long-term industrial and regional development and other national objectives.

2.264 The acquisition of goods and services for clients by Public Works and Government Services Canada (except those relating to construction and real property services) is the responsibility of the Supply Operations service. The service comprises the Supply Operations service Branch plus regional components that provide much of the delivery. The service procures goods and services costing about \$11 billion, or two thirds of the amount spent, on behalf of government departments. Thus it plays a key role in achieving government policy.

2.265 Our audits between 1987 and 1991 identified opportunities to improve five specific aspects of performance linked to the above-noted broader public purposes. These areas are: sharing responsibility and authority more effectively, increasing the extent of competition, ensuring reasonableness of profit levels, strengthening the monitoring

Once initiatives have been fully implemented, significant improvement may occur.

The Department has increased the general level of delegation and seeks a review of how well delegated responsibility is discharged.

We recommended that the Department increase competition where feasible.

of contracts, and linking the “track record” of suppliers to contract awards.

2.266 Sharing responsibility and authority more effectively. The *Department of Supply and Services Act* gives the Minister responsibility for the acquisition of goods and services when such functions are not “by law assigned to any other department, board or agency ...”. Within the framework of Treasury Board Regulations, the Minister is responsible for procuring most goods, unless he has delegated the responsibility to another minister and for procuring services when requested to do so by other departments. In practice, the Department and user departments share responsibilities for meeting public purposes, even where delegation has not been granted. In 1989, we pointed out opportunities to delegate further authority to departments, minimizing red tape and administrative constraints and allowing the Department to concentrate on high-value items. In 1991, we noted the opportunity to clarify roles where the responsibility for procurement was being shared with user departments.

2.267 Since 1989, the Department has increased the general level of delegation to procure goods from \$500 to \$2,500. It has also arranged some 23,000 standing offers for both goods and services. By using standing-offer arrangements, departments are generally allowed to contract up to \$40,000 per transaction. The Department advises that at this time it cannot determine the proportion of original contracts of less than \$10,000 to total contract activity. But such measures have reduced the number of low-value contracts handled by the Department. In 1986-87, 224,000 (81%) of 277,000 contracts and amendments processed by the Department were for less than \$10,000. By 1991-92, the Department

had reduced the number and proportion of such contracts and amendments to 103,000 (59%) out of 174,000, and in 1992-93 to 83,000 (54%) out of 153,000. The Department received legal advice that the ministers of the user departments have full responsibility when the Department delegates procurement responsibility to them.

2.268 The Department is seeking, in co-operation with Treasury Board, a review of existing and potential new delegations before recommending that future delegations be granted. This review will presumably permit assessment of how well delegated responsibilities have been discharged.

2.269 Increasing the extent of competition. The Department acknowledges that competition is the cornerstone of government procurement. Where feasible, effective competition reduces the price that the government pays, and promotes fairness, openness and equity in the government’s relationships with business.

2.270 In 1991, we found that about 40 percent of the contracts that the Department of Supply and Services processed, valued at approximately \$3 billion, had been awarded on a non-competitive, sole-source basis. At that time we pointed out that research in other jurisdictions indicated potential for significant price savings (depending on the type of commodity and the state of the market, for example) if previously non-competitive contract requirements were competed, where feasible. We acknowledged that it would not be feasible to compete every contract. We recommended that the Department look more closely at the underlying reasons for sole-sourcing contracts, increase competition where feasible, and remind

client departments that responsibility for ensuring maximum competition is shared.

2.271 Departmental statistics for 1992–93 show that 38 percent of the 174,000 contracts and amendments the Supply Operations Service issued (representing 39 percent of the value or \$4.7 billion) were sole-sourced.

Comparable data for 1993–94 are not available, but officials advised that the Department sole-sourced 39 percent of 126,000 contracts with a total value of \$7.1 billion. The value sole-sourced was \$2.5 billion or 35 percent of the value.

2.272 Departmental managers point out, and we agree, that these statistics provide an incomplete indicator of the real level of competition in federal procurement. They do not cover direct contracting by other departments. Further, these statistics classify as:

- “non-competitive” contracts — those for which advance notice of intention to award to a single source without competition was publicized, thus giving other suppliers an opportunity to challenge the award; and
- “competitive” contracts — those for which only one bid was received.

2.273 Interpreting available data is made more difficult because the Department classifies contracts in different ways for different audiences and purposes. Better indicators, not currently available, would classify contracts more consistently and take into account, for example, the number of bids attracted. Departmental officials have concluded that the current level of competitiveness is significantly improved and they do not believe that they could realize significant savings by using competitive processes instead of sole-sourcing.

2.274 They base their assessment on the successful implementation of the

electronic Open Bidding System, the rate of complaints and successful appeals, and their day-to-day experience. The Open Bidding System moves government procurement into the electronic era, connecting the department and suppliers through a network operated by a contractor. An important element of the Open Bidding strategy gives suppliers an opportunity to identify their ability to compete, by advertising proposed sole-source procurements. The Department issues such notices for about 40 percent of proposed sole-source contract awards over \$25,000. A preliminary review by the Department suggests that competitors challenge slightly less than 10 percent of advertised sole-source proposals and that they succeed in about one third of their challenges. The Department has not analyzed the monetary effect of successful challenges on the prices government pays and, after completion of our review, stated that it considers that such analysis is not feasible. The Department also acknowledges that the Open Bidding System has moved from a pilot project to full acceptance without a formal assessment of its impact.

2.275 The data regarding the impact of advanced contract award notices are indefinite. We estimate that savings achieved to date probably lie within a range from less than \$1/2 million to more than \$6 million per year. We encourage the Department to continue its attempts to increase the level of effective challenge to sole-source awards in the system by advertising more proposed awards and encouraging more suppliers to connect to the system. We still believe that there is an opportunity for substantial savings.

2.276 In view of the importance of fair and open competition, the materiality of the potential savings, and the imprecise

Departmental officials believe that the current level of competitiveness is significantly improved. But data to support their judgment is weak.

The Department has concluded that contractors are realizing a reasonable level of profit from government work.

data, the Department is prepared to work with the Office, to develop a consistent series of data that will provide a proper foundation for analysis and comment. This data will clarify the extent and impact of competitive tendering, substantiate the progress reported, and develop better indicators of the extent of competition for both departmental and delegated procurement.

2.277 Ensuring reasonableness of profit levels. According to 1992-93 data, about 3 percent of contracts, representing about 23 percent of total value, are let on the basis of cost reimbursement or other bases that include allowances for profit and contribution to general business overhead. The Department's profit policy establishes boundaries limiting the costs that are allowable and the amount of profit a business can make on government work. In 1991, we recommended that the profit policy be revised to relate the profit calculation more effectively to the level of risk assumed by the supplier.

2.278 In 1992, the Department proposed changes to the profit policy, which drew objections from industry. The Department engaged consultants to study the effects of the profit policy. The consultants were selected in conjunction with the relevant industry association and they then used data from companies who had volunteered to participate. The results of the study were presented in 1993. The consultants had developed two indicators to compare the relative profitability of government work with that of similar work done for others. One indicator showed that contractors earned significantly less profit per dollar for government work than for other work. A second, more relevant, but considerably less reliable indicator showed that contractors earned slightly higher return on capital invested for government work.

Following the studies, the Department concluded that the contractors studied were realizing a reasonable level of profit from government work and that the Department should not implement the proposed changes to the profit policy.

2.279 Strengthening the monitoring of contracts. Contract auditing is an important element of monitoring contract performance. About 11 percent of contracts, representing 61 percent of contract value, are priced on cost-plus or other mechanisms that could create incentives for contractors to charge the government for borderline or even invalid costs. In 1988, we reported a number of opportunities to improve audits of contract performance. In summary, the Department could improve its selection of the contracts it audits, and individual audits could focus more on determining whether the Crown was paying too much for goods and services.

2.280 To improve contract selection, the Department has implemented a sampling plan to select the optimum mix and coverage of contracts to audit. To catch up on its backlog and implement its sampling plan, the Department decided to skip two sample years. Officials point out that their audits of contracts have uncovered a relatively low level of non-compliance. Further, they can always look at past years should future audits suggest a problem with particular suppliers.

2.281 One indicator of the effectiveness of individual audits is the proportion of unallowable costs detected by audits to the amount actually recovered. In 1991-92, the Department's audits identified \$13 million in non-allowable costs. Of that amount, it now estimates that it will recover about \$6.5 million. The Department is analyzing why 50 percent of the disallowable charges found by audit

are ultimately collected, and whether changes might be needed either in audit practices or in procedures used to negotiate the disposition of findings.

2.282 Linking “track record” of suppliers to contract awards. For a number of years, unsatisfactory performance by suppliers has been recognized as a problem entailing additional cost to the government. In our 1991 Report, we recommended that Supply and Services investigate the feasibility and cost-effectiveness of revising its computer systems to include key information related to suppliers’ past performance.

2.283 In May 1993, the Department produced a draft Supplier Sanctions Policy that calls for assessing suppliers’ performance and provides for sanctions against those who do not perform satisfactorily. The Department is in the process of testing its Vendor Information Management system, a prerequisite to both implementing the policy (once it has been approved) and dealing effectively with the problem of unsatisfactory performance by suppliers.

Weighing the costs and benefits of secondary objectives of procurement activities

2.284 Government procurement policies and practices can produce certain secondary benefits, such as more opportunities for Canadian suppliers through Canadian content requirements, and increased industrial and regional development.

2.285 Canadian content policy. Our 1991 audit found that certain aspects of domestic preference policies were complex to administer and might conflict. Furthermore, the policy to buy Canadian products encourages the use of domestic

agents by foreign suppliers. These agents charged approximately 16 percent to cover their administrative costs and profits. We recommended that if the policy of providing preference to domestic agents continued, procedures be established to evaluate the additional costs and benefits of applying the policy.

2.286 The Department introduced a new Canadian content policy on 1 April 1992. Where allowable under trade agreements, the policy gives preference on the basis of the origin of goods and services rather than distribution channels. For certain contracts, suppliers are advised that where sufficient competition exists in Canada, other bids will be rejected.

2.287 The Department does not capture data on the operation of the policy (a policy that we estimate applies to more than 10 percent of procurement contracts over \$25,000), and advised that it is not in a position to evaluate the effects.

2.288 Industrial and regional development. In response to our findings in 1991, the Treasury Board Secretariat stated that it was reviewing and updating its policy on management of procurement. One of the objectives of the review was to establish a better framework for analyzing and evaluating proposals to use procurement to promote industrial and regional development in a selective, judicious and cost-effective manner. The proposed framework would include criteria for evaluating project performance risks.

2.289 In June 1992, Treasury Board approved a revised policy on management of procurement. As under the former policy, procurement review committees are convened, as required, to assess the potential for achieving socio-economic benefits case by case.

Fifty percent of disallowable charges found by audit are ultimately collected.

The Department is testing a system to track suppliers’ performance.

2.290 The reviews are carried out under a new framework, directed by a senior interdepartmental committee known as the Procurement Strategy Committee, and are chaired by a senior official from Public Works and Government Services Canada. The Committee provides the previously missing link between individual procurements and the government's industrial and regional development policy and direction on other national objectives.

2.291 Operating departments are now required to produce annual forecasts providing details on all planned purchases exceeding \$2 million. The Procurement Strategy Committee gives further consideration to any of these purchases that are not subject to international agreements and that have potential for achieving industrial and regional development benefits.

2.292 The new policy requires that any significant increased cost and risk associated with industrial and regional benefits be disclosed and that the source of the necessary extra funding be identified. Although we have not reviewed the documentation on the individual procurement proposals that the Procurement Strategy Committee has considered, we have been advised that the Committee has looked at only a few. In those proposals, operating departments did not identify any significant increased cost and risk attributable to industrial or regional benefits that a proposed procurement strategy might provide.

2.293 In view of our past audit findings in this area, we believe there is a need to review how this policy is being implemented by departments. The Department states that it is a Treasury Board policy, and thus the Treasury Board Secretariat should undertake the evaluation.

Improving productivity

2.294 In our 1987 Report, we noted that the Department had a productivity problem. The services it provided were of adequate quality, but they were expensive. We identified the keys to improving performance as:

- management attention and leadership;
- better performance information; and
- exploiting the benefits available from automation.

2.295 We illustrated the extent of the potential for improvement by comparing cost and productivity levels of different regional offices and identifying significant discrepancies among them. Further, we established that the per-unit cost of administering the public service payroll and superannuation services were between two and three times higher than those of other governments whose quality of service was essentially the same. We estimated that the government could save up to \$46 million a year of the \$82 million it then spent by bringing its unit-cost in line.

2.296 Since 1987, management has initiated a series of strategic projects and is now providing leadership and focus on productivity. The Department states that between 1987 and 1993 it significantly improved its performance measurement system. It reports that its new system regularly provides data on workload, effectiveness and efficiency, including cross-regional comparisons. While amalgamation of Supply and Services and Public Works into Public Works and Government Services Canada required the redevelopment of corporate systems, inhibiting progress in this area, the Department reports that work is proceeding and will be completed over the next several years. Hopefully, this will

enable departmental officials to better analyze their situation, set targets and manage performance, and explain and support their positions.

2.297 The Department has significantly increased its expenditure on new systems development. It has developed and introduced a number of "strategic projects" to update the technology it uses. Significant portions of the computer budget have been reallocated from maintenance to development. The Department estimates that four completed projects have produced annual savings of about \$23.2 million.

2.298 For regional variations in cost and productivity, the Department has estimated the amount of work that could be eliminated, in connection with system development plans. Furthermore, it has developed new standards for management and support levels in regional offices.

2.299 Since 1987, the Department has been planning and developing a Public Service Compensation System as one of its strategic projects to reduce costs significantly. Officials project the system will cost about \$137 million, come on line in 1996, and save the Department an estimated \$24.4 million annually. In the meantime, the Department reports that per-unit costs are generally the same today as in 1987, representing an improvement in efficiency of 18 percent for pay, and 4 percent for pensions (for an overall improvement of 14 percent), when salary increases of 26.5 percent and other changes are factored in.

2.300 The Department agrees with the findings in the 1987 Report. However, it does not believe that the cost differential between provincial and federal systems can be eliminated because of differences in the overall approach requiring a complex model for compensation. The

Department maintains that responsibility for the federal government approach to compensation rests with the employer, Treasury Board.

2.301 The 1985-86 comparison of provincial payroll costs indicated that the provincial unit costs were then in the \$50 to \$70 per account range (federal unit costs were then \$172). A 1993-94 survey carried out by the Province of Alberta found unit costs of provincial payroll systems for those with over 30,000 accounts to be in the \$45 to \$116 per account range. (Federal unit costs are \$162 for payroll and \$63 for pensions.) The Department estimates that post Public Service Compensation System costs will be in the \$80 to \$90 range for payroll and the \$50 to \$60 range for pensions.

2.302 The Office of the Auditor General believes that the Department could have better supported its position as described above, and would be in a better position to move forward, had it:

- bench-marked its processes and costs to establish targets and quantified the incremental costs of the federal compensation model features; and
- established the total cost to the government of implementing the Public Service Compensation System.

2.303 The Department reported, in 1988, its intent to proceed carefully, balancing the pressure to reduce costs with the need to avoid past errors and the need for its people to adjust to automation. The Office of the Auditor General accepts that it is the Department's responsibility to make such trade-offs. We have concerns, however, that the returns expected from investment in the Public Service Compensation System may not fully cover its costs, taking into account the combined effects of:

The Department expects that the Public Service Compensation System will reduce costs significantly.

It costs the Department about the same to pay an employee today as it did in 1987, despite salary increases.

- the level of improvement sought;
- the time frames adopted;
- the time value of money; and
- the total investment required by the government.

Improving systems development capabilities

2.304 In 1987 we pointed out opportunities to make significant improvements in systems development and computer support. We illustrated the importance of seizing those opportunities by noting systems development projects that had not always fulfilled their objectives and that had not been completed on time and within budget.

2.305 The Office is conducting a government-wide audit of "Systems Under Development". We plan to report our findings on these projects in 1995.

***Department's response:** The Department is constantly seeking ways to improve productivity and has made good progress since 1987. With respect to the compensation area, once the Public*

Service Compensation System (PSCS) is implemented, unit costs will be within the range of costs of other jurisdictions. However, the Department does not believe simple comparisons across jurisdictions provide for useful productivity targets. Costs for compensation administration are heavily influenced by the compensation framework, that is, collective agreements and personnel policies. In this regard, the federal system is more complex than provincial jurisdictions. The mandate of Public Works and Government Services Canada is to administer the framework as determined by the employer. The Department advises on the cost implications associated with changes in that framework. It is in no position to assess the relative costs or benefits of that framework.

With respect to the Auditor General's concerns on the business case, the Department believes that the business case for PSCS continues to be sound and in accordance with Treasury Board Secretariat guidelines. As part of its system development methodology, however, the Department is planning a post-implementation review to verify benefits and address this issue.

Chapter 3

Other Audit Observations

The work that led to other audit observations was conducted in accordance with the legislative mandate, policies and practices of the Office of the Auditor General. These policies and practices embrace the standards recommended by the Public Sector Accounting and Auditing Board (PSAAB) of the Canadian Institute of Chartered Accountants.

Table of Contents

	Page
Main Points	3-5
Introduction	3-7
Environment Canada, Public Works and Government Services Canada and Treasury Board Secretariat	3-7
Twenty years and \$26.6 million later, the federal government has still not resolved an issue of non-productive rental payments	3-7
Fisheries and Oceans Canada	3-9
Approximately \$3 million spent on two projects that have not served the Department's operating needs	3-9
Industry Canada	3-13
Grant agreement fails to link payments to the recipient's financial requirements or performance targets	3-13
National Archives of Canada and Public Works and Government Services Canada	3-15
Lack of due regard to economy in the delivery of an archival facility, and accommodation requirements not fully resolved	3-15
Revenue Canada	3-20
The matter relating to condominium corporations raised in our 1992 Report has not been resolved	3-20
Exhibits	
3.1 Comparative Analysis of Resource Requirements	3-10

Main Points

3.1 The *Auditor General Act* requires the Auditor General to include in his annual Report matters of significance that, in his opinion, should be brought to the attention of the House of Commons.

3.2 The “Other Audit Observations” chapter fulfils a special role in the annual Report. Other chapters normally describe the findings of the comprehensive audits we perform in particular departments; or they report on audits and studies of issues that relate to operations of the government as a whole. This chapter is used to report individual matters that have come to our attention during our financial and compliance audits of the Public Accounts of Canada, Crown corporations and other entities. It is also used to report some specific matters that have come to our attention during our comprehensive audits.

3.3 The chapter contains a number of observations concerning departmental expenditures and tax revenues. The issues addressed generally involve failure to comply with authorities, and the expenditure of money without due regard to economy.

3.4 Observations reported cover the following:

- after 20 years and \$26.6 million, an issue of non-productive rental payments that remains unresolved;
- approximately \$3 million spent on two projects that have not served operating needs;
- a grant agreement that fails to link payments to the recipient’s financial requirements or performance targets;
- the lack of due regard to economy in the delivery of an archival facility, and accommodation requirements not fully resolved; and
- the matter relating to condominium corporations earning tax-free interest income that has not been resolved.

3.5 Although the individual audit observations report matters of significance, they should not be used as a basis for drawing conclusions about matters we did not examine.

Introduction

3.6 This chapter contains matters of significance that are not included elsewhere in the annual Report and that we believe should be drawn to the attention of the House of Commons. The matters reported were noted during our financial and compliance audits of the Accounts of Canada, Crown corporations and other entities, or during our comprehensive value-for-money audits.

3.7 Section 7(2) of the *Auditor General Act* requires the Auditor General to call to the attention of the House of Commons any significant cases where he has observed that:

- accounts have not been faithfully and properly maintained or public money has not been fully accounted for or paid, where so required by law, into the Consolidated Revenue Fund;
- essential records have not been maintained or the rules and procedures applied have been insufficient to safeguard and control public property; to secure an effective check on the assessment, collection and proper allocation of the revenue; and to ensure that expenditures have been made only as authorized;
- money has been expended other than for purposes for which it was appropriated by Parliament;
- money has been expended without due regard to economy or efficiency; or
- satisfactory procedures have not been established to measure and report the effectiveness of programs, where such procedures could appropriately and reasonably be implemented.

3.8 Each of the matters of significance reported in this chapter was examined in accordance with generally accepted auditing standards; accordingly,

our examinations included such tests and other procedures as we considered necessary in the circumstances. The matters reported should not be used as a basis for drawing conclusions about matters not examined. The instances that we have observed are described in this chapter under the appropriate department heading.

3.9 Consistent with Office policy on the follow-up of matters in our annual Report, other audit observations included in this chapter are normally followed up two years after initial reporting. In our follow-up of the observations included in our 1992 Report, we found that for seven of the ten observations, either corrective action had been taken to address the matter or we no longer considered the matter to be an outstanding issue. One observation has resulted in another observation this year. Two observations remain outstanding because they involve matters that we are continuing to monitor, and corrective action or the lack thereof will be reported as deemed appropriate.

This chapter contains a number of observations on matters of significance not included elsewhere in the annual Report.

Environment Canada, Public Works and Government Services Canada and Treasury Board Secretariat

Twenty years and \$26.6 million later, the federal government has still not resolved an issue of non-productive rental payments

We have reported five times since 1976 that the federal government has been making unproductive lease, property tax and grant in-lieu-of taxes payments for land in Vancouver. Sixteen years after the Standing Committee on Public Accounts recommended that the government

resolve the matter, the payments continue. Since 1974, the government has paid about \$26.6 million net of sub-lease revenue for the land. The Crown has recently sought private sector interest to develop the site under an environment centre concept with a federal presence, and is currently evaluating proposals received. Although numerous attempts to date to resolve the issue have been unsuccessful, the federal government believes that its present approach will finally produce results.

3.10 Background. In 1974, after acquiring an existing leasehold at a cost of \$4 million, Environment Canada (Department of the Environment) entered into a 71-year lease with the Squamish Indian Band for approximately 22 hectares (55 acres) of reserve land near the Lions Gate Bridge in Vancouver.

3.11 The Department was to construct and operate facilities consistent with an environment centre on the property. This would restrict the government to building a mixture of office, laboratory and storage type facilities. The lease provides that the government's interest in the land, plus any buildings built on it, will revert to the Band at the end of the lease in 2045.

3.12 Under the terms of the lease, the Department of the Environment pays rent for the land on the basis of the "highest and best use" of the property. This formula is based on a hypothetical mix of office, laboratory, residential, commercial (including hotels) and industrial space. The resulting rent is reviewed and adjusted every five years for existing market conditions. The result of basing the rental on highest and best use is that the Band will always achieve the maximum rent potential, no matter how the land is developed or whether it is developed at all.

3.13 In 1976, the then Minister of the Environment announced that the Pacific Environment Centre would not proceed, but committed the Crown to continue honouring the payment of rent according to the terms and conditions of the lease. Since that time, the Crown has unsuccessfully attempted to negotiate Band approval for either a termination of the lease or alternative realty management schemes. To date, these negotiations have been fruitless.

3.14 Issues. In view of the obligation to make continuing rental payments, the challenge for the federal government is to make effective use of the land in a manner consistent with the original environment centre concept — a mixture of office, laboratory and storage space. Alternatively, the federal government must negotiate with the Band another effective use for the land.

3.15 Between 1974 and 1994, the federal government paid \$28.8 million for lease payments, property taxes and grants in lieu of taxes. Over this same period, the government received a total of \$2.2 million in revenue from a sub-lease of a small portion of the property. However, the federal government has received little value or benefit to date in return for its net payments of about \$26.6 million. The government's current annual net payments are about \$4.4 million.

3.16 In 1977, 1984 and 1988, we noted the government's lack of action to resolve the matter. The Standing Committee on Public Accounts recommended that either the federal government dispose of the lease or negotiate a change of use for the property. The government has tried several approaches in the past, which have been unsuccessful in resolving this matter.

3.17 The Department of the Environment, the Department of Public

The government's current annual net payments are about \$4.4 million.

Works and Government Services and the Treasury Board Secretariat are presently considering potential uses for the site. The federal government has sought and received “expressions of interest” from the private sector to develop the site in a manner consistent with the terms of the lease. Officials are now assessing these.

3.18 Conclusion. Further delays in resolving this matter will result in continuing non-productive payments for unused land.

Departments' response: *The Crown is diligently trying to resolve the issue of the non-productive payments for unused land. The Crown will report back on its present efforts by March 1995.*

Fisheries and Oceans Canada

Approximately \$3 million spent on two projects that have not served the Department's operating needs

Fisheries and Oceans Canada (Department of Fisheries and Oceans) spent approximately \$3 million on two projects without conducting appropriate analyses in their initial stages. In one case, because the Department failed to adequately address the ongoing resource requirements for a planned replacement of a fisheries patrol vessel, about \$1 million was expended over a ten-year period on the design of a vessel that was never built. In another case, the Department did not conduct an analysis of the planned utilization of a deep-sea research system to support departmental operations before deciding to participate in its funding and development. The Department developed a remotely operated submersible system that, to date, has been rarely used. The system was

developed at an estimated cost of \$3.2 million to the federal government, of which the Department's share was about \$1.8 million. In both cases, funds were expended on projects that have not served the Department's operating needs.

Case 1 — Replacement of a fisheries patrol vessel

3.19 Background. The acquisition of a new vessel is usually made in two phases, each leading to a separate contract. The first (design) contract provides a vessel design to meet specific requirements set out in the request for proposal. The second (construction) contract requires a design check to validate the vessel design, development of more detailed specifications as needed, and construction of the vessel according to the specifications.

3.20 In 1982, the Department identified the need for, and approved in principle, the design and construction of a vessel to replace an aging fisheries patrol vessel that was operating on a seasonal basis. In order to meet a higher demand for its patrol and surveillance activities, the Department envisioned that the replacement vessel would be larger and capable of surveillance further offshore year-round and would thus require more resources to operate. The design contract was awarded in 1984.

3.21 In 1987-88, Treasury Board approved up to \$7.6 million to fund the construction of the replacement vessel, on the understanding that any incremental resources needed to operate the new vessel would be funded internally by the Department.

3.22 Issue. In December 1989, a departmental analysis identified a concern that operating resources for the new vessel had not been allocated internally. Despite

The Department remained committed to the construction contract without having identified a source of funding to operate the new vessel.

this concern, the Department did not explore options for redeploying resources. It was planning to seek Treasury Board approval for additional funding or, failing that, to redeploy resources at a later date. It continued the acquisition process, awarding the construction contract in January 1990, and committed further significant funding to the project.

3.23 In April 1990, the design check showed that the vessel, if built as originally designed, would not have sufficient capacity to accommodate all the systems and equipment specified and would not float properly. The construction contract contained a provision that would have permitted the Department to terminate the project, at that time at a nominal cost. At about the same time, concern was again expressed that operating the new vessel would require a significant reallocation of resources; the Department did not proceed to seek additional funding from Treasury Board.

3.24 The Department decided to rectify problems identified in the design check, which called for the vessel to be lengthened. As a result, the Department

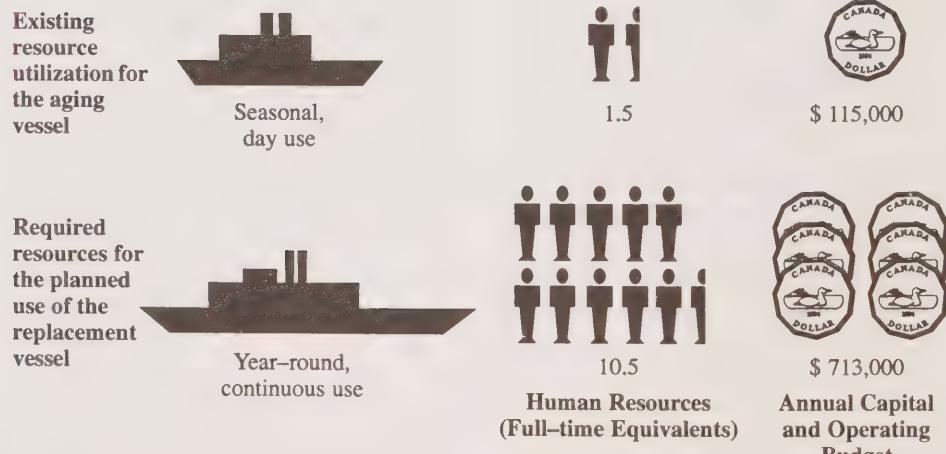
remained committed to the terms of the construction contract without having identified a source of funding to operate the new vessel when constructed.

3.25 In March 1991, after spending almost \$700,000 on the project, the Department analyzed options to redeploy enforcement resources in an attempt to fund the new vessel's operations. For greater efficiency, the vessel was to be operated continuously, year-round. This would require a seven-fold increase in human resources and about a six-fold increase in the annual budget, in comparison with resources used for the aging vessel that was operating on a seasonal basis (Exhibit 3.1). The Department concluded that the incremental resources needed could be made available only by removing a number of other vessels from service, which would compromise overall surveillance coverage of that region.

3.26 On the basis of the analysis and recognizing that seeking additional funding from Treasury Board was unrealistic, the Department cancelled the construction contract in June 1991. A settlement of \$264,000 was paid in March 1994 to the shipyard to cover costs.

Exhibit 3.1

Comparative Analysis of Resource Requirements



Source: Department of Fisheries and Oceans, March 1991

incurred as a result of the cancellation. The Department currently has no plans to construct a vessel using the completed design.

3.27 In our view, the Department should have conducted appropriate analysis of options for meeting incremental resource requirements before engaging in the construction contract, since it was clear that operating the new vessel year-round would require more resources. In addition, it should have pursued the availability of internal funding to operate the new vessel when the design failed to meet the validation test of the construction contract. Over a ten-year period, approximately \$1 million was spent on the design of a vessel that was never built, and the Department had not taken timely and appropriate action to safeguard the use of public funds.

Case 2 — Development of a remotely-operated submersible system

3.28 **Background.** From 1974 to 1986, the Department operated a crewed submersible system to conduct deep-sea scientific research. The Department was

the operator and one of the system's users; other users included scientists from Natural Resources Canada (formerly Energy, Mines and Resources Canada), Environment Canada and Canadian universities. In 1986, due to budget reductions, the Department cancelled the charter for the mother ship carrying the submersible system. The cancellation effectively rendered the crewed system inaccessible to the Department's operations.

3.29 The concept of developing and constructing a remotely operated submersible system was discussed between 1984 and 1986. The development was initiated in 1986, as part of the government's program of unsolicited proposal aiming to support government operations and research and development activities in the private sector. The system was developed to provide a capacity for conducting deep-sea activities to a depth of 5,000 metres, much further than the 2,000-metre limit for the crewed system. The Department advised us that another objective was to support the sub-sea industry.



The ROPOS – a deep-water tethered remotely-operated vehicle (see paragraph 3.29)

The Department developed the new system without conducting an analysis to ensure that the project could be justified based on the planned use to serve its need for deep-sea research.

3.30 The Department provided leadership and major funding during the system's development and was the scientific authority for the contract. The Department is also responsible for the ongoing operation of the new system. Of an overall development cost of approximately \$3.2 million, the Department's share was about \$1.8 million. Public Works and Government Services Canada and Natural Resources Canada contributed an estimated amount of \$900,000 and \$500,000 respectively. The former contributed on the basis of the unsolicited proposal program; the latter funded the development of a winch and some components of the system.

3.31 Issue. The Department decided to contribute to the development of the new system without conducting an analysis to ensure that the project could be justified based on the planned use to serve its need for deep-sea research. In arriving at its decision, the Department assumed that other users would continue to require a capacity for deep-sea manoeuvres similar to that provided by the crewed system. The Department did not prepare a plan to market the system when developed.

3.32 The remotely operated submersible system became operational in late 1990. As of 31 March 1994, the utilization of the system has been minimal, particularly in deep seas. In 1992-93 and 1993-94, the Department did not use the system for deep-sea operations to support its activities; it conducted testing and trouble-shooting on the system in shallow water for about 20 dives. Other users during the two years made a total of about 50 dives, approximately 40 of which were conducted in deep seas. Although the sea-bed time in dives from the remotely operated system is generally

higher than in dives from the crewed system, the latter made an average of about 120 dives annually over a 12-year period.

3.33 To date, the new system has been rarely used. The Department's research requirements have largely been in shallow waters. Moreover in 1993-94, the Department started to charge for the operating and maintenance costs of the system and, due to decreased availability in funding to all users, scientists were making less use of it.

3.34 The Department is currently identifying other potential domestic and international users. Current departmental analysis shows that usage of the new system has to increase at least six-fold to break even. It is also developing options that include allowing Canadian user groups to take over the ongoing responsibility for operating its remotely operated submersible system.

3.35 In our opinion, the Department should have ensured that the project was justifiable on the basis of operational needs prior to making its decision to participate in the development of the remotely operated submersible system.

3.36 Conclusion. In both cases, the Department failed to take appropriate steps at the early stages of the projects to ensure that public funds were expended in a manner that would achieve good value for money.

Department's response:

Case 1 – Replacement of a fisheries patrol vessel. The Department contends that appropriate analyses had been conducted on the incremental cost of operating the replacement vessel at the outset of the project, and proper consideration was given to options to meet these incremental resource requirements before engaging in the construction

contract. In the early 1980s, it was reasonable to assume that needed resources to operate the vessel would be available from within. However, successive operating and personnel cuts over the ensuing years mandated recourse to considering a Treasury Board submission to obtain the required resources. This led to the development of a departmental omnibus Treasury Board submission that, until the spring of 1991, had well-founded expectations that additional vessel resources for the entire departmental fleet would be approved.

With the tabling of the February 1991 Federal Budget and continuing fiscal restraints, it became evident that the request for additional resources was no longer a realistic expectation. Internal funding sources that had been constantly eroded during the period could not be reallocated at that time without prejudicing higher-priority programs. The Department had no choice but to reluctantly cancel the project, thus avoiding the fiscally irresponsible state of having delivered a vessel, at a cost of \$7.6 million, that it would not have been able to operate efficiently.

Case 2 – Development of a remotely operated submersible system. The remotely operated submersible system (ROPOS) today remains an example of leading-edge technology and is one of the relatively few submersibles in the world capable of diving to Canada's continental shelf territory. At the time of the unsolicited proposal, there was a requirement for an unmanned remotely operated vehicle. There was support from other users with sources of funds identified. The proposal was put forward by industry, confident there would be a commercial market. This was an opportunity to support Canadian enterprise in leading-edge technological development, and there was a climate that encouraged Canadian scientific achievement. A user survey, in 1988,

verified client need for a submersible of this type.

The Auditor General's conclusions appear premature. The submersible is now available for use. As the economy picks up, with the Law of the Sea Convention coming into force in November 1994, and with a revitalized Canadian and international marine industry, it is expected that dives with the ROPOS will increase substantially.

Industry Canada

Grant agreement fails to link payments to the recipient's financial requirements or performance targets

Under a grant agreement, the Department has paid \$12.75 million to a venture capital corporation. This agreement was not structured to ensure that financial assistance was provided only when needed; nor was it linked to performance targets. The Department continues to pay grant money despite the fact that the corporation's income from investments exceeds its operating expenses.

3.37 Background. In May 1988, the Department of Regional Industrial Expansion (now Industry Canada or the Department of Industry) entered into a \$15 million grant agreement (subsequently reduced to \$14.55 million) to a labour-sponsored venture capital corporation. The purpose of the grant was to assist the corporation in the establishment, development, promotion, operation and investment of a venture capital fund. It is to be paid over seven years, from May 1988 to March 1995. The grant is not repayable unless the corporation does not meet the terms of the agreement.

3.38 The main objective of the corporation, as endorsed by the

Agreement did not ensure payments were made based on need.

Department in approving the grant, is to make investments in Canadian small and medium-sized businesses in order to stimulate the economy and promote job creation and maintenance.

3.39 As of 31 March 1994, the corporation had raised over \$280 million in share capital. Approximately 11 percent of the share capital had been invested in Canadian small and medium-sized businesses. The balance of approximately \$250 million remained in low-risk interest-bearing securities. This level of investment activity does not violate the terms of the grant agreement or the tax act.

3.40 **Issues.** Up to 31 March 1994, the Department of Industry had provided the venture capital corporation with \$12.75 million. The payments, to be used to establish and operate a venture capital fund, were in compliance with the terms of the grant. The result, however, was that the grant provided government support for start-up and ongoing operating costs to a corporation that, as of 31 March 1994, had made few investments in Canadian small and medium-sized businesses.

3.41 Financial assistance provided to the corporation was justified by the Department on the basis of offsetting start-up and operating costs. However, we found no evidence that the Department had analyzed the operating requirements of the corporation or considered structuring an agreement with sufficient flexibility to ensure that payments were made only on the basis of demonstrated need. Also, the Department did not assess the impact expected from the corporation's investments in Canadian businesses or include specific performance targets in the agreement.

3.42 Currently, the income generated by the corporation's investments exceeds

its operating expenses; yet, under the grant agreement, the Department must continue to provide financial support until March 1995.

3.43 In our view, the agreement should have been structured so that financial support was provided only as long as a review of the corporation's financial position indicated that assistance was needed. Our review of the corporation's financial position at 31 March 1994 indicated that the corporation would be in a position to meet its operating costs without continuing to receive financial assistance from the government.

3.44 Conclusion. In our opinion, the Department has not been prudent in the spending of public funds. We believe that agreements of this type need to provide sufficient flexibility to ensure that financial assistance is provided only when needed or when specific performance targets are achieved.

Department's response: In 1988, Treasury Board approved a grant of \$15 million, to be disbursed over seven years, to support the establishment of a national, labour-sponsored venture capital corporation. The size and structure of the grant were based on an analysis conducted for the recipient by a respected private sector firm with recognized expertise in the operations of the venture capital industry.

Up to March 1994, the corporation had spent in excess of \$16 million on start-up, development and operation. It expects that amount to reach about \$20 million by March 1995 when the grant expires. The grant has permitted the corporation to keep its management expense ratio within industry norms, allowing it to compete with others for investors' funds.

Industry Canada considers that the grant was appropriately structured to meet both

federal objectives and the needs of the venture capital corporation.

National Archives of Canada and Public Works and Government Services Canada

Lack of due regard to economy in the delivery of an archival facility, and accommodation requirements not fully resolved

As part of a composite project to respond to the needs of the National Archives of Canada, its new conservation and laboratory building under construction in Gatineau, Quebec is designed to provide a safe environment for the country's valuable archival records. However, the location in the planned city centre of Gatineau has resulted in a design that responds to factors other than the functional requirements. Funds are being spent on site and design considerations that are in excess of the need for the building's intended role. In addition, although there will be a total investment of \$107 million for a storage and laboratory facility, the choice of the "split-facility, two-site option" by the government results in one of the three major problems expressed by the House of Commons Committee on Communications and Culture remaining unresolved (see paragraph 3.55).

3.45 Background. Responding to concerns that over 75 percent of archival holdings were stored in substandard facilities, the House of Commons Standing Committee on Communications and Culture initiated a study of the National Archives accommodation in 1987. The Committee identified three major problems facing the National

Archives: a need for additional storage space; operating out of dispersed locations and the associated risks of transporting archival records between sites; and current storage and laboratory spaces that were well below acceptable standards. The Committee concluded that the situation posed serious consequences for the sound operation of the institution and the protection of the archival heritage of Canadians.

3.46 The Committee recommended to Parliament that a single new building be constructed to house all archival functions. The Committee also identified a split-facility as the second best option. These options had been developed by the National Archives as part of a draft long-range accommodation plan in 1987.

3.47 The Minister of Communications tabled the government's response to the Committee's recommendations in May 1988, which accepted the split-facility, two-site option. The response stated that the West Memorial Building would be renovated to serve as the new headquarters, housing administrative services, reading and research rooms and exhibition areas. The laboratories and heritage collection storage areas would be accommodated in a new satellite facility located outside the core area of the National Capital Region.

3.48 The National Archives Architectural Program explained that it was unacceptable to have the public shuttle between facilities and that, accordingly, the West Memorial Building would house public displays and research rooms as well as all administration functions. The satellite facility would house the conservation functions, primary records storage and archival work spaces and other support spaces.

There will be a total investment of \$107 million in a storage and laboratory facility.

The risk inherent in transporting the documents has not been fully resolved.

3.49 In July 1989, Public Works and Government Services Canada was authorized by Treasury Board to begin preliminary design work for the West Memorial Building. However, in December 1989 work on the project was frozen for two years as part of the government's restraint measures. In June 1993, National Archives resubmitted its requirements to Public Works and Government Services Canada for the renovation of the West Memorial Building. Approval to proceed with the renovation has not been given.

3.50 Treasury Board granted Preliminary Project Approval for the Gatineau Building Phase I (the satellite facility) in October 1990 for \$107 million (Phase II containing additional archival storage would be built at a later date). Effective Project Approval was given in April 1992 for the same budget, with a usable area of 23,500 square metres. The total project budget is: construction \$59.2 million; fees, contingencies and GST \$23.1 million; land (including fees) \$6.7 million; and National Archives (project management, preparation of the collection, additional fit-up, shelving and moving) \$18.2 million. As of September 1994, the project managers have said that there are no indications that the budget will be exceeded.

3.51 Public Works and Government Services Canada is building the facility; the National Archives will be the tenant and is responsible for describing the program requirements and obtaining space authorization from Treasury Board. The project is now under way and has an expected construction completion date of November 1996.

3.52 Audit Scope and Objectives. The audit examined the preliminary stages of the construction of a new facility in Gatineau for the National Archives of

Canada. Specifically, we reviewed the needs definition, the options analysis, the project definition, and the design and review processes. We did not audit the construction activities, but will review the appropriateness of doing so at a later date.

3.53 The objectives of the audit were to determine: whether the concerns of the Committee on Communications and Culture are being addressed; whether the National Archives facility in Gatineau will meet the project's objectives; and whether the project is being implemented with due regard to economy and efficiency. We included in our audit a review of the West Memorial Building project, its impact on the National Archives' Accommodation Program and how it supports the mandate and objectives of the National Archives.

3.54 Issue — Committee's concerns not fully resolved. One of the three major problems facing the National Archives, identified by the House of Commons Committee, is not fully resolved by the construction of the Gatineau Building.

3.55 The Gatineau project is expected to remedy the long-term problems of providing state-of-the-art storage and laboratory space and allowing for future growth of the collection. However, the problem of the risks inherent in transporting the documents has not been fully resolved. Furthermore, the requirement for new public research and display spaces, identified in the government's response to the Committee's report, has also not been resolved because a decision on whether to proceed with the renovation of the West Memorial Building has not been made.

3.56 The Effective Project Approval for the Gatineau Building involves the use of four facilities: the current National Library building, the unrenovated West Memorial Building, the Renfrew building

(for additional storage space) and the new Gatineau Building. As a result of the decision to locate the public space and the archivists in the West Memorial Building, the documents will have to be brought there from the storage facilities.

However, National Archives acknowledges that "it is inherently risky to move the records between buildings regardless of security and handling precautions." As well, the House of Commons Committee noted, in 1987, that the documents were deteriorating as a result of being transported from one building to another.

3.57 In an effort to mitigate the risk, the National Archives is planning to implement measures to reduce the transportation of fragile records. It is also planning to use specially modified trucks with controlled environments. The National Archives will transport some of the documents to the unrenovated West Memorial Building, which does not have environmentally controlled research or storage rooms and loading docks. In our opinion, despite the National Archives'

efforts, transporting the documents continues to place them at some risk.

3.58 Plans for the new Gatineau facility and the renovation of the West Memorial Building were fully co-ordinated as two components of a single accommodation program. It was assumed that the two facilities would open at the same time. However, at the time of the audit, Public Works and Government Services Canada did not have authority to proceed with the West Memorial Building renovation. As a result of this major change in planning assumptions, the National Archives and Public Works and Government Services Canada need to develop contingency plans, which could include changes to the Gatineau Building.

3.59 **Issue — lack of due regard to economy.** The Treasury Board submission requesting authority to purchase the land stated that the site chosen for the Gatineau facility was selected because it met all the National Archives criteria. However, we found that the selected site did not meet several of these criteria. In addition, we found no

The "building within a building" design incorporates a concrete structure enclosed by exterior glass walls that buffer the inner vault environment from the outside (see paragraphs 3.50 and 3.62).



The downstream effects of choosing this site are significant.

documented evidence that a comparative analysis of the eight Gatineau sites identified by Public Works and Government Services Canada was carried out against the criteria. Furthermore, although the analysis of the selected site acknowledged that there were costs associated with not meeting the criteria, these costs were not determined before the site was purchased, despite a specific requirement in the site selection criteria to do so. We noted that costs related to the site are now being incurred that were not discussed in the Treasury Board submission. Given the lack of comparative analysis and documentation on the site selection process, we could not determine the basis for the choice of site or if it was the most appropriate one.

3.60 The downstream effects of choosing this site are significant. More expensive design considerations were required to fit the new facility into the proposed Gatineau town centre development, as well as to maintain a prominent public presence. These design elements exceed the basic building requirements and do not significantly enhance the preservation of the records. Treasury Board indicated its intended role for the Gatineau facility by directing that emphasis be placed on functional requirements. A Public Works and Government Services Canada design document supported this view by noting that the exterior finish and landscaping for the Gatineau Building should be appropriate for a laboratory and storage facility, and not to the level of a cultural facility.

3.61 Treasury Board Secretariat was informed that the cost premium for building in downtown Gatineau was considered minimal, about \$2 million; the facility would include upgraded external cladding and landscaping, consistent with

any large federal project, and finishes were intended to be utilitarian.

3.62 The roof is intended to be clad in stainless steel supported by stainless steel columns. The “building within a building” design incorporates a concrete structure enclosed by exterior glass walls that buffer the inner vault environment from the outside. In our opinion, this design is not consistent with the commitment to Treasury Board that simple approaches were to be used.

3.63 At the time of our audit, plans called for \$4.8 million to be spent on landscaping and site development that included, among other things, artificial marshes in a park-like setting for the building. Because of the facility’s proximity to the Gatineau city core and a residential neighbourhood, special efforts have been made to reduce the imposing nature of the building and to ensure that it does not look like a warehouse. For example, the building will be surrounded by contoured land (berms).

3.64 The selected site was three times larger than required for Phases I and II. The 37.4-hectare (92.4 acres) site was purchased at a cost of \$ 6.6 million (including fees), although the land requirement was only 12.8 hectares (31.6 acres). Furthermore, because the site is adjacent to the residential neighbourhood, the building has been situated well back from the property line, resulting in an inefficient use of land.

3.65 The Gatineau Building is a unique special-purpose building, although a few similar projects exist to provide a basis for comparison. We considered several archival facilities in Canada and the United States and selected the recently completed United States National Archives and Records Administration (NARA II) facility in College Park, Maryland, for a comparison of total

project costs. Our preliminary analysis indicated that on a comparable unit-cost basis, the Gatineau project appears to be significantly more expensive. In reviewing our findings with the project management team, it was determined that further analysis would be required to confirm and explain the cost differences. We have asked Public Works and Government Services Canada, with support from National Archives and this Office, to undertake this analysis and to provide us with the appropriate explanations. We believe that such cost analyses are useful if completed early in the life of any project, and may contribute to identifying potential savings in the remainder of this project.

3.66 Conclusion. In our view, the original intent of both the Committee and the government was to provide the National Archives of Canada with proper and up-to-date archival storage, conservation laboratories, public spaces and research rooms. We concluded that the Gatineau Building is designed to provide a safe environment for the country's valuable archival records and should meet those project objectives. However, in our opinion, the project demonstrates a lack of due regard to economy because funds are being spent on site and design considerations that exceed the needs of the building's intended role. The choice of this site and the concerns with public visibility have added costs to the project and have resulted in a design that responds to factors other than the functional requirements.

3.67 Furthermore, although there will be a total investment of \$107 million, the Commons Committee's concerns for adequate public space and research rooms may remain unresolved; the National Archives will still have to transport some fragile archival records; and researchers

will continue to use them in buildings that do not meet archival standards.

National Archives of Canada's response:
The National Archives is assisting in implementing an accommodation solution, consistent with government decisions, and within approved budgets. Laboratories and storage spaces will meet all known safety, health and conservation standards for long-term preservation of the various media held by the Archives. The program and design of the Gatineau Building is consistent with the 1988 decision to accommodate the Archives in split facilities – separating storage and labs from public and office spaces. This split requires the Archives to move records between locations; however, significant investments have been made in order to eliminate risk to collections from transportation. The risks noted in the audit were not the subject of an examination, nor were the strategies developed by the National Archives examined in any detail. It is our informed



The roof is intended to be clad in stainless steel supported by stainless steel columns (see paragraph 3.62).

opinion that any transportation-related risks are well below those related to other mandated responsibilities, such as the examination and use of records by researchers, a public right enjoyed by all Canadians. Finally, space limitations in the core of the National Capital has imposed, in Canada as in most developed countries, split facilities for the National Archives because of the inevitable growth of the collections.

Although the audit observation suggests that changes to the Gatineau Building should have been considered because of fiscally imposed delays in the West Memorial project, it is irresponsible and fiscally imprudent to make any such changes in mid-construction and contrary to the government's intent for the Archives accommodations.

The Gatineau location provides the National Archives with a storage and laboratory facility in relative close proximity to the downtown location (12 minutes away). It also offers the very important advantage of knowing that only safe and compatible activities will be located close by in the future, as the site is part of a planned town centre. Most other locations will not provide this assurance of future compatible use required for the safety of collections.

Public Works and Government Services Canada's response: *The purchase was based on the Gatineau Site Analysis that recommended "... proceeding with the purchase of the site (is) based on a predominance of positive factors and the judgment that the negative factors can be successfully mitigated." This project was developed consistent with the parameters defined and approved by Treasury Board. The design and construction are appropriate for a utilitarian building and were chosen to ensure the long-term safekeeping of the archival collection and due regard to economy.*

As to the statement that, on a comparable unit-cost basis, the Gatineau project

appears to be significantly more expensive, as compared to the NARA II project, we believe it is premature to draw any indication as to which project has the higher cost until the study is completed.

Revenue Canada

The matter relating to condominium corporations raised in our 1992 Report has not been resolved

In 1992 we reported that Revenue Canada was allowing condominium corporations to earn tax-free interest income for the benefit of their members, the individual condominium owners.

3.68 Background. Revenue Canada's Information Circular No. 79-7 states that, although a condominium corporation cannot qualify as an exempt non-profit organization, Revenue Canada is prepared not to tax any interest earned on a condominium corporation's operating or reserve funds provided that such funds are not maintained at an unreasonably high level in relation to the purposes for which they were created.

3.69 The tax exemption for interest earned on a condominium corporation's operating and reserve funds indirectly benefits the condominium owners. Homeowners not living in condominiums must pay tax on any interest earned on funds set aside for maintaining their homes. This situation creates an inequity between homeowners who own condominiums and those who own other types of residential dwellings.

3.70 In 1992, Revenue Canada advised us that it was studying the status of these condominium corporations under the Act. In July 1994, Revenue Canada further advised us that it had undertaken a detailed study of this practice, including a review of various provincial laws, and had

prepared tentative recommendations. It also informed us that The Canadian Condominium Institute and The Association of Condominium Managers of Ontario were contacted for input, but consultation had been delayed. Revenue Canada recently received comments from these organizations.

3.71 There are hundreds of thousands of condominium units in Canada. A 1992 Canada Mortgage and Housing study on the Toronto Census Metropolitan Area (which includes the regional municipalities of Metro, York, Peel, and parts of Durham and Halton regions) reported that there were about 163,800 residential condominium units just in that area.

3.72 Issue. While some activity, primarily relating to consultations and research, has occurred, Revenue Canada has not resolved the matter by changing its Information Circular or its assessing practice. In our opinion, undertaking a study of the issue does not relieve Revenue Canada of the responsibility for resolving the matter.

Revenue Canada's response: It is our intention, by the end of January 1995, to have the consultative process completed with all stakeholders, to clarify any issues related to the taxability of interest earned by condominium corporations, and to set in motion processes required, if any, to modify Revenue Canada's application of the law related to the taxability of interest earned by condominium corporations.

The matter of condominium corporations earning tax-free interest has not been resolved.

Chapter 4

Background on the
Audit Process

Table of Contents

	Page
Introduction	4-5
Selecting an Area for Audit	4-5
Ensuring Audit Quality	4-6
Costs of Crown Corporation Audits	4-7
Exhibits	
4.1 Organization of the Office of the Auditor General	4-5
4.2 Costs of Preparing Annual Audit Reports for Fiscal Years Ending on or before 31 March 1994	4-8

Introduction

4.1 This Report contains chapters that describe the results of audit work and studies completed by the Office during the past year.

4.2 The purpose of this chapter is to provide some background on a few key features of the audit process, including what the Office considers when deciding what programs or activities to audit. Information on the cost of audit work in Crown corporations is also included. This chapter contains a summary organization chart shown in Exhibit 4.1.

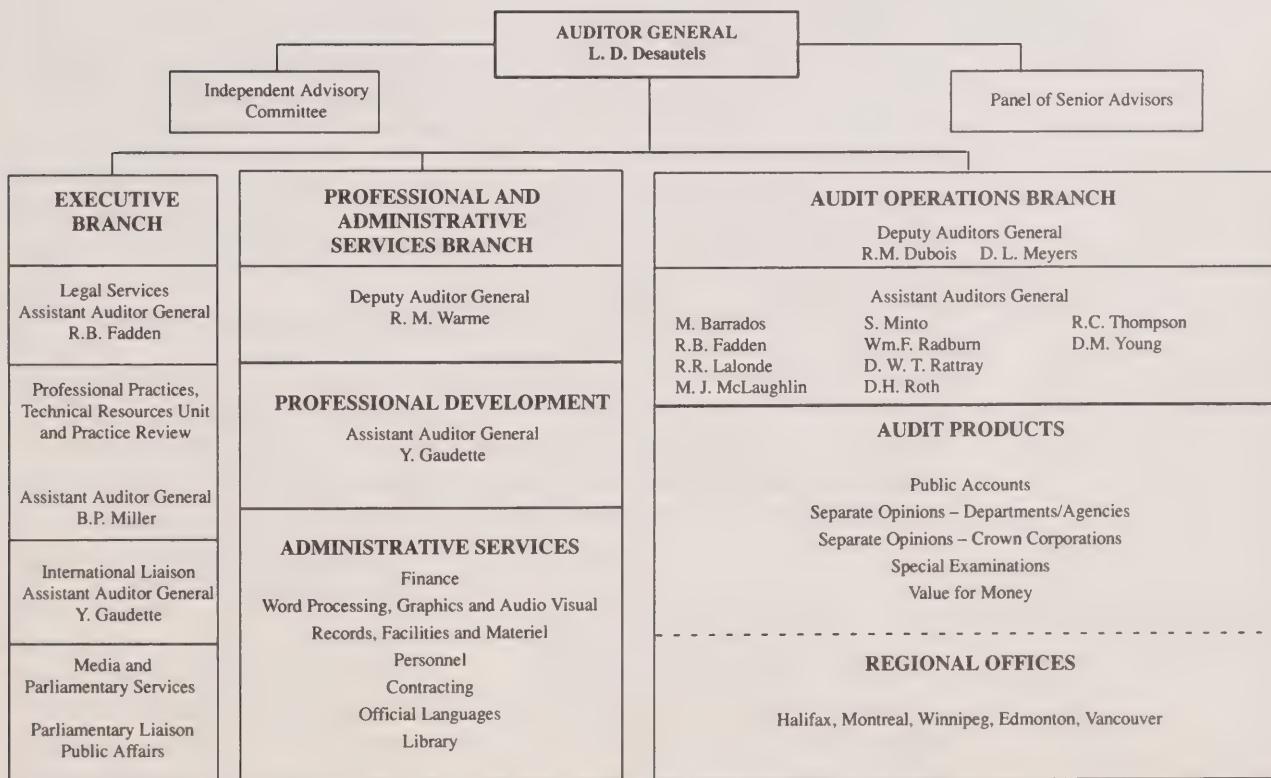
4.3 A more complete description of the activities and costs of the Office, and its organization and staff, is shown in its Part III of the Estimates for 1994-95.

Selecting an Area for Audit

4.4 A long-range audit plan is prepared for all departments, multidepartmental programs, and a number of functions that are common across government, such as internal audit and program evaluation. This plan normally covers a five-year period and identifies the proposed approach to completing the annual financial attest, compliance with authority, and

Exhibit 4.1

Organization of the Office of the Auditor General
September 1994



value-for-money audit work required for a comprehensive audit of the entity.

4.5 The plan lays out a proposed cycle for audit work for each entity. These proposed cycles vary according to the nature of the entity, its level of expenditure and importance in government operations, and the resources available to carry out the audit. The Office's approach does not call for all operations of an entity to be audited within a fixed audit cycle. The principles of audit worthiness and auditability are fundamental in deciding what to audit.

4.6 Some issues are such that they are included in all entity audits. For example, in every audit, the Office considers the quality of reporting by a department or agency on its stewardship of the resources voted by Parliament, and on the results achieved with those resources. There are other issues on which the Office exercises its judgment as to what it believes is important to Canadians at a given time. An example is the Office's concern that Canadians receive better information about the deficit and accumulated debt.

4.7 In assessing whether something is worth auditing, the Office looks at the significance of an entity or activity, including both its impact on government spending and revenue and the social, economic, environmental, safety or equity issues involved. The risk factor is another important consideration in assessing audit worthiness. The Office assesses the possibility that an undesirable result might occur, and what its consequences might be.

4.8 A further aspect of judging audit worthiness is sensitivity to the general political and managerial climate. The Office wants its work to be as timely and relevant as possible. For example, it must

determine whether the area under consideration is the subject of current public attention. If it is, then the Office will determine whether an audit at that time could produce additional independent information to Parliament. If not, the audit would probably be delayed. The Office must at all times remain — and be seen to remain — independent and objective.

4.9 Another fundamental consideration is auditability, or whether a particular audit is possible. This involves consideration of such questions as the following:

- Does the proposed area fall within the Office's audit mandate?
- Can the Office obtain sufficient evidence to reach an objective conclusion on the audit area?
- Can the Office assemble the expertise needed to carry out the audit successfully?
- Does the Office have the resources needed to conduct the audit in accordance with generally accepted auditing standards?

4.10 A proposed audit area must meet the tests of being both audit worthy and auditable to be selected for audit.

Ensuring Audit Quality

4.11 Once an area has been selected for audit, the Office establishes an advisory committee to provide advice throughout the course of the audit. These committees usually have advisors from outside the Office and the public service, as well as from inside the Office.

4.12 Advisors are chosen to bring the perspectives and experiences of managers or auditors of similar entities, or of persons knowledgeable in the area under audit, or of others affected by the

operations of the entity. External advisors have included former members of Parliament and deputy ministers, business executives, academics, representatives of client groups, and recognized subject-matter experts.

4.13 The purpose of these advisory committees is to provide advice and guidance on matters such as audit scope, criteria, methodology, the reasonableness of observations and recommendations, and the overall presentation of the report. In short, these committees guide, review and challenge the work of audit teams over the life of an audit.

4.14 For this year's Report, the Office used 76 outside advisors based on their current or former positions in a variety of professions, including:

Deputy ministers and other senior officials from federal, provincial or foreign governments	25
University professors	10
Accountants	8
Business executives	7
Management consultants	6
Ex-military officials	4
Economists	4
Actuaries	3
Engineers	3
Lawyers	2
Architect	1
Doctor	1
Climatologist	1
Aboriginal leader	1

4.15 Observations, conclusions and recommendations are presented to entity management before an audit chapter is finalized. This permits the Office to obtain confirmation of audit facts, and management's reaction to the chapter. Management responses are included in the

final report. This process serves to highlight any areas of agreement or disagreement on any conclusions or recommendations emerging from an audit.

4.16 This process is applied to all audits and reports to create an end product of the highest quality possible, in terms of both the way an audit is conducted and how it is reported. It also permits the Public Accounts Committee to focus on the issues raised in a chapter.

Costs of Crown Corporation Audits

4.17 Section 147 of the *Financial Administration Act* requires that the Office disclose the costs of preparing audit reports on all Crown corporations other than those exempted under section 85 of the Act (see Exhibit 4.2). An audit report includes an opinion on a corporation's financial statements and on its compliance with specified authorities. It may also include reporting on any other matter deemed significant.

4.18 The Office is also required by section 68 of the *Broadcasting Act* to report the cost of any audit report on the Canadian Broadcasting Corporation. For the fiscal year ended 31 March 1994, the full cost of the annual audit report was \$634,070.

4.19 Section 138 of the *Financial Administration Act* requires that, at least once every five years, each parent Crown corporation named in Schedule III of the Act undergo a special examination. This is distinct from the requirement for the annual audit of financial statements.

4.20 The objective of a special examination is to determine whether a corporation's financial and management control and information systems and its

Exhibit 4.2

**Costs of Preparing Annual Audit
Reports for Fiscal Years Ending
on or before 31 March 1994**

Crown Corporation	Fiscal Year Ended	Cost Incurred
Atlantic Pilotage Authority	31.12.93	\$ 40,550
Atomic Energy of Canada Limited	31.03.94	347,950
Canada Deposit Insurance Corporation	31.03.94	225,160
Canada Development Investment Corporation (Joint Auditor)	31.12.93	37,820
Canada Lands Company Limited	31.03.94	2,690
Canada Lands Company (Vieux-Port de Québec) Inc.	31.03.94	5,650
Canada Mortgage and Housing Corporation (Joint Auditor)	31.12.93	378,050
Canada Museums Construction Corporation Inc.	31.03.94	9,000
Canadian Commercial Corporation	31.03.94	96,040
Canadian Dairy Commission	31.07.93	120,880
Canadian Museum of Civilization	31.03.94	129,200
Canadian Museum of Nature	31.03.94	123,940
Canadian Saltfish Corporation	31.03.94	56,020
Cape Breton Development Corporation	31.03.94	232,670
Defence Construction (1951) Limited	31.03.94	45,040
Enterprise Cape Breton Corporation	31.03.94	60,890
Export Development Corporation	31.12.93	263,250
Farm Credit Corporation	31.03.94	330,200
Federal Business Development Bank (Joint Auditor)	31.03.94	199,400
Freshwater Fish Marketing Corporation	30.04.93	111,550
Great Lakes Pilotage Authority, Ltd.	31.12.93	41,290
Laurentian Pilotage Authority	31.12.93	77,090
Marine Atlantic Inc. (Joint Auditor)	31.12.93	130,560
National Capital Commission	31.03.94	214,150
National Gallery of Canada	31.03.94	102,830
National Museum of Science and Technology	31.03.94	53,470
Old Port of Montreal Corporation Inc.	31.03.94	102,100
Pacific Pilotage Authority	31.12.93	40,350
Petro-Canada Limited (Joint Auditor)	31.12.93	6,800
Queens Quay West Land Corporation	31.03.94	43,750
Royal Canadian Mint	31.12.93	176,990
The St. Lawrence Seaway Authority	31.03.94	86,760
Seaway International Bridge Corporation Ltd.	31.12.93	47,600
The Jacques Cartier and Champlain Bridges Incorporated	31.03.94	98,660
Standards Council of Canada	31.03.94	39,750
Teleglobe Canada	31.12.93	13,410
VIA Rail Canada Inc. (Joint Auditor)	31.12.93	184,810

management practices provide reasonable assurance that:

- assets have been safeguarded and controlled;
- financial, human and physical resources have been managed economically and efficiently; and
- operations have been carried out effectively.

4.21 In 1993–94 the Office completed the special examination of five Crown

corporations. The costs to the Office were:

Atomic Energy of Canada Limited	\$ 1,048,290
National Capital Commission	948,960
The St. Lawrence Seaway Authority	731,400
VIA Rail Canada Inc.	1,955,460
Federal Business Development Bank (Joint Examiner)	1,016,810

Appendix A

Auditor General Act

R.S., c. A-17

An Act respecting the office of the Auditor General of Canada and matters related or incidental thereto

SHORT TITLE

Short title 1. This Act may be cited as the *Auditor General Act*. 1976-77, c. 34, s.1.

INTERPRETATION

Definitions

2. In this Act,

Auditor General

“Auditor General” means the Auditor General of Canada appointed pursuant to subsection 3(1);

Crown corporation

“Crown corporation” has the meaning assigned by section 83 of the *Financial Administration Act*;

Department

“department” has the meaning assigned to that term by section 2 of the *Financial Administration Act*;

Registrar

“registrar” means the Bank of Canada and a registrar appointed under Part IV of the *Financial Administration Act*. 1976-77, c. 34, s.2, 1984, c. 31, s.14.

AUDITOR GENERAL OF CANADA

Appointment and tenure of office

3. (1) The Governor in Council shall, by commission under the Great Seal, appoint a qualified auditor to be the officer called the Auditor General of Canada to hold office during good behaviour for a term of ten years, but the Auditor General may be removed by the Governor in Council on address of the Senate and House of Commons.

Idem

(2) Notwithstanding subsection (1), the Auditor General ceases to hold office on attaining the age of sixty-five years.

Re-appointment

(3) Once having served as the Auditor General, a person is not eligible for re-appointment to that office.

Vacancy

(4) In the event of the absence or incapacity of the Auditor General or if the office of Auditor General is vacant, the Governor in Council may appoint a person temporarily to perform the duties of Auditor General. 1976-77, c. 34, s.3.

Salary

4. (1) The Auditor General shall be paid a salary equal to the salary of a puisne judge of the Supreme Court of Canada.

Pension benefits

(2) The provisions of the *Public Service Superannuation Act*, other than those relating to tenure of office, apply to the Auditor General except that a person appointed as Auditor General from outside the Public Service may, by notice in writing given to the President of the Treasury Board not more than sixty days after the date of his appointment as Auditor General, elect to participate in the pension plan provided for in the *Diplomatic Service (Special)*

Superannuation Act in which case the provisions of that Act, other than those relating to tenure of office, apply to him and the provisions of the *Public Service Superannuation Act* do not apply to him. 1976-77, c. 34, s.4; 1980-81-82-83, c. 50 s.23, c. 55, s.1.

DUTIES

Examination

5. The Auditor General is the auditor of the accounts of Canada, including those relating to the Consolidated Revenue Fund and as such shall make such examinations and inquiries as he considers necessary to enable him to report as required by this Act. 1976-77, c. 34, s.5.

Idem

6. The Auditor General shall examine the several financial statements required by section 64 of the *Financial Administration Act* to be included in the Public Accounts, and any other statement that the President of the Treasury Board or the Minister of Finance may present for audit and shall express his opinion as to whether they present fairly information in accordance with stated accounting policies of the federal government and on a basis consistent with that of the preceding year together with any reservations he may have. 1976-77, c. 34, s. 6; 1980-81-82-83, c. 170, s. 25.

Annual and additional reports to the House of Commons

7. (1) The Auditor General shall report annually to the House of Commons and may make, in addition to any special report made under subsection 8(1), not more than three additional reports in any year to the House of Commons

(a) on the work of his office; and,

(b) on whether, in carrying on the work of his office, he received all the information and explanations he required.

Idem

(2) Each report of the Auditor General under subsection (1) shall call attention to anything that he considers to be of significance and of a nature that should be brought to the attention of the House of Commons, including any cases in which he has observed that

(a) accounts have not been faithfully and properly maintained or public money has not been fully accounted for or paid, where so required by law, into the Consolidated Revenue Fund;

(b) essential records have not been maintained or the rules and procedures applied have been insufficient to safeguard and control public property, to secure an effective check on the assessment, collection and proper allocation of the revenue and to ensure that expenditures have been made only as authorized;

(c) money has been expended other than for purposes for which it was appropriated by Parliament;

(d) money has been expended without due regard to economy or efficiency; or

(e) satisfactory procedures have not been established to measure and report the effectiveness of programs, where such procedures could appropriately and reasonably be implemented.

Submission of annual report to Speaker and tabling in the House of Commons

(3) Each annual report by the Auditor General to the House of Commons shall be submitted to the Speaker of the House of Commons on or before December 31 in the year to which the report relates and the Speaker of the House of Commons shall lay each such report before the House of Commons forthwith after receiving it or, if that House is not then in sitting, on any of the first fifteen days on which that House is sitting after the Speaker receives it.

Notice of additional reports to Speaker and tabling in the House of Commons

Submission of additional reports to Speaker and tabling in the House of Commons

Special report to the House of Commons

Submission of reports to Speaker and tabling in the House of Commons

Idem

Improper retention of public money

Inquiry and report

Advisory powers

(4) Where the Auditor General proposed to make an additional report under subsection (1), the Auditor General shall send written notice to the Speaker of the House of Commons of the subject-matter of the proposed report.

(5) Each additional report of the Auditor General to the House of Commons made under subsection (1) shall be submitted to the House of Commons on the expiration of thirty days after the notice is sent pursuant to subsection (4) or any longer period that is specified in the notice and the Speaker of the House of Commons shall lay each such report before the House of Commons forthwith after receiving it or, if that House is not then sitting, on any of the first fifteen days on which that House is sitting after the Speaker receives it. 1976-77, c. 34, s. 7; 1994, c.32, s.1 and 2.

8. (1) The Auditor General may make a special report to the House of Commons on any matter of pressing importance or urgency that, in the opinion of the Auditor General, should not be deferred until the presentation of the next report under subsection 7(1).

(2) Each special report of the Auditor General to the House of Commons made under subsection (1) or 19(2) shall be submitted to the Speaker of the House of Commons and shall be laid before the House of Commons by the Speaker of the House of Commons forthwith after receipt thereof by him, or if that House is not then sitting, on the first day next thereafter that the House of Commons is sitting. 1976-77, c. 34, s.8; 1994, c.32, s.3.

9. The Auditor General shall

(a) make such examination of the accounts and records of each registrar as he deems necessary, and such other examinations of a registrar's transactions as the Minister of Finance may require, and;

(b) when and to the extent required by the Minister of Finance, participate in the destruction of any redeemed or cancelled securities or unissued reserves of securities authorized to be destroyed under the *Financial Administration Act*;

and he may, by arrangement with a registrar, maintain custody and control, jointly with that registrar, of cancelled and unissued securities. 1976-77, c. 34, s.9.

10. Whenever it appears to the Auditor General that any public money has been improperly retained by any person, he shall forthwith report the circumstances of the case to the President of the Treasury Board. 1976-77, c. 34, s.10.

11. The Auditor General may, if in his opinion such an assignment does not interfere with his primary responsibilities, whenever the Governor in Council so requests, inquire into and report on any matter relating to the financial affairs of Canada or to public property or inquire into and report on any person or organization that has received financial aid from the Government of Canada or in respect of which financial aid from the Government of Canada is sought. 1976-77, c. 34, s.11.

12. The Auditor General may advise appropriate officers and employees in the public service of Canada of matters discovered in his examinations and, in particular, may draw any such matter to the attention of officers and employees engaged in the conduct of the business of the Treasury Board. 1976-77, c. 34, s.12.

ACCESS TO INFORMATION

Access to information

13. (1) Except as provided by any other Act of Parliament that expressly refers to this subsection, the Auditor General is entitled to free access at all convenient times to information that relates to the fulfilment of his responsibilities and he is also entitled to require and receive from members of the public service of Canada such information, reports and explanations as he deems necessary for that purpose.

Stationing of officers in departments

(2) In order to carry out his duties more effectively, the Auditor General may station in any department any person employed in his office, and the department shall provide the necessary office accommodation for any person so stationed.

Oath of secrecy

(3) The Auditor General shall require every person employed in his office who is to examine the accounts of a department or of a Crown corporation pursuant to this Act to comply with any security requirements applicable to, and to take any oath of secrecy required to be taken by, persons employed in that department or Crown corporation.

Inquiries

(4) The Auditor General may examine any person on oath on any matter pertaining to any account subject to audit by him and for the purposes of any such examination the Auditor General may exercise all the powers of a commissioner under Part I of the *Inquiries Act*. 1976-77, c. 34, s.13.

Reliance on audit reports of Crown corporations

14. (1) Notwithstanding subsections (2) and (3), in order to fulfil his responsibilities as the auditor of the accounts of Canada, the Auditor General may rely on the report of the duly appointed auditor of a Crown corporation or of any subsidiary of a Crown corporation.

Auditor General may request information

(2) The Auditor General may request a Crown corporation to obtain and furnish to him such information and explanations from its present or former directors, officers, employees, agents and auditors or those of any of its subsidiaries as are, in his opinion, necessary to enable him to fulfil his responsibilities as the auditor of the accounts of Canada.

Direction of the Governor in Council

(3) If, in the opinion of the Auditor General, a Crown corporation, in response to a request made under subsection (2), fails to provide any or sufficient information or explanations, he may so advise the Governor in Council, who may thereupon direct the officers of the corporation to furnish the Auditor General with such information and explanations and to give him access to those records, documents, books, accounts and vouchers of the corporation or any of its subsidiaries access to which is, in the opinion of the Auditor General, necessary for him to fulfil his responsibilities as the auditor of the accounts of Canada. 1976-77, c. 34, s.14.

Officers, etc.

15. (1) Such officers and employees as are necessary to enable the Auditor General to perform his duties shall be appointed in accordance with the *Public Service Employment Act*.

Contract for professional services

(2) Subject to any other Act of Parliament or regulations made thereunder, but without the approval of the Treasury Board, the Auditor General may, within the total dollar limitations established for his office in appropriation Acts, contract for professional services.

Delegation to Auditor General

(3) The Auditor General may exercise and perform, in such manner and subject to such terms and conditions as the Public Service Commission directs, the powers, duties and

functions of the Public Service Commission under the *Public Service Employment Act*, other than the powers, duties and functions of the Commission in relation to appeals under section 21 of that Act and inquiries under section 34 of that Act.

Suspension

(4) The Auditor General may suspend from the performance of his duty any person employed in his office. 1976-77, c. 34, s.15; 1992, c.54, s.79.

Responsibility for personnel management

16. In respect of persons employed in his office, the Auditor General is authorized to exercise the powers and perform the duties and functions of the Treasury Board under the *Financial Administration Act* that relate to personnel management including the determination of terms and conditions of employment and the responsibility for employer and employee relations, within the meaning of paragraph (1)(e) and sections 11 to 13 of that Act. 1976-77, c. 34, s.16.

Classification standards

17. Classification standards may be prepared for persons employed in the office of the Auditor General to conform with the classifications that the Auditor General recognizes for the purposes of that office. 1976-77, c. 34, s.18.

Delegation

18. The Auditor General may designate a senior member of his staff to sign on his behalf any opinion that he is required to give and any report, other than his annual report on the financial statements of Canada made pursuant to section 64 of the *Financial Administration Act* and his reports to the House of Commons under this Act and any member so signing an opinion or report shall indicate beneath his signature his position in the office of the Auditor General and the fact that he is signing on behalf of the Auditor General. 1976-77, c. 34, s.19.

ESTIMATES

Estimates

19. (1) The Auditor General shall annually prepare an estimate of the sums that will be required to be provided by Parliament for the payment of the salaries, allowances and expenses of his office during the next ensuing fiscal year.

Special report

(2) The Auditor General may make a special report to the House of Commons in the event that amounts provided for his office in the estimates submitted to Parliament are, in his opinion, inadequate to enable him to fulfil the responsibilities of his office. 1976-77, c. 34, s.20.

Appropriation allotments

20. The provisions of the *Financial Administration Act* with respect to the division of appropriations into allotments do not apply in respect of appropriations for the office of the Auditor General. 1976-77, c. 34, s.21.

AUDIT OF THE OFFICE OF THE AUDITOR GENERAL

Audit of the office of the Auditor General

21. (1) A qualified auditor nominated by the Treasury Board shall examine the receipts and disbursements of the office of the Auditor General and shall report annually the outcome of his examinations to the House of Commons.

Submission of reports and tabling

(2) Each report referred to in subsection (1) shall be submitted to the President of the Treasury Board on or before the 31st day of December in the year to which the report relates and the President of the Treasury Board shall lay each such report before the House of Commons within fifteen days after receipt thereof by him or, if that House is not then sitting, on any of the first fifteen days next thereafter that the House of Commons is sitting. 1976-77, c. 34, s.22.

Appendix B

Financial Administration Act
Extracts from Part X

FINANCIAL ADMINISTRATION ACT

R.S., c. F-11

Extracts from Part X

CROWN CORPORATIONS

Financial Management

Books and systems

131. (1) Each parent Crown corporation shall cause

- (a) books of account and records in relation thereto to be kept, and
- (b) financial and management control and information systems and management practices to be maintained,

in respect of itself and each of its wholly-owned subsidiaries, if any.

Idem

(2) The books, records, systems and practices referred to in subsection (1) shall be kept and maintained in such manner as will provide reasonable assurance that

- (a) the assets of the corporation and each subsidiary are safeguarded and controlled;
- (b) the transactions of the corporation and each subsidiary are in accordance with this Part, the regulations, the charter and by-laws of the corporation or subsidiary and any directive given to the corporation; and
- (c) the financial, human and physical resources of the corporation and each subsidiary are managed economically and efficiently and the operations of the corporation and each subsidiary are carried out effectively.

Internal audit

(3) Each parent Crown corporation shall cause internal audits to be conducted, in respect of itself and each of its wholly-owned subsidiaries, if any, to assess compliance with subsections (1) and (2), unless the Governor in Council is of the opinion that the benefits to be derived from those audits do not justify their cost.

Financial statements

(4) Each parent Crown corporation shall cause financial statements to be prepared annually, in respect of itself and its wholly-owned subsidiaries, if any, in accordance with generally accepted accounting principles as supplemented or augmented by regulations made pursuant to subsection (6) if any.

Form of financial statements

(5) The financial statements of a parent Crown corporation and of a wholly-owned subsidiary shall be prepared in a form that clearly sets out information according to the major businesses or activities of the corporation or subsidiary.

Regulations

(6) The Treasury Board may, for the purposes of subsection (4), make regulations respecting financial statements either generally or in respect of any specified parent Crown corporation or any parent Crown corporation of a specified class, but such regulations shall, in

respect of the preparation of financial statements, only supplement or augment generally accepted accounting principles. 1991, c. 24, s. 41.

Auditor's Reports

Annual auditor's report

132. (1) Each parent Crown corporation shall cause an annual auditor's report to be prepared, in respect of itself and its wholly-owned subsidiaries, if any, in accordance with the regulations, on

(a) the financial statements referred to in section 131 and any revised financial statement referred to in subsection 133(3); and

(b) any quantitative information required to be audited pursuant to subsection (5).

Contents

(2) A report under subsection (1) shall be addressed to the appropriate Minister and shall

(a) include separate statements, whether in the auditor's opinion,

(i) the financial statements are presented fairly in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year,

(ii) the quantitative information is accurate in all material respects and, if applicable, was prepared on a basis consistent with that of the preceding year, and

(iii) the transactions of the corporation and of each subsidiary that have come to his notice in the course of the auditor's examination for the report were in accordance with this Part, the regulations, the charter and by-laws of the corporation or subsidiary and any directive given to the corporation; and

(b) call attention to any other matter falling within the scope of the auditor's examination for the report that, in his opinion, should be brought to the attention of Parliament.

Regulations

(3) The Treasury Board may make regulations prescribing the form and manner in which the report referred to in subsection (1) is to be prepared.

Separate reports

(4) Notwithstanding any other provision of this Part, the auditor of a parent Crown corporation may prepare separate annual auditor's reports on the statements referred to in paragraph (1)(a) and on the information referred to in paragraph (1)(b) if, in the auditor's opinion, separate reports would be more appropriate.

Audit of quantitative information

(5) The Treasury Board may require that any quantitative information required to be included in a parent Crown corporation's annual report pursuant to subsection 150(3) be audited.

Other reports

(6) The auditor of a parent Crown corporation shall prepare such other reports respecting the corporation or any wholly-owned subsidiary of the corporation as the Governor in Council may require.

Examination

(7) An auditor shall make such examination as he considers necessary to enable him to prepare a report under subsection (1) or (6).

Reliance on internal audit

(8) An auditor shall, to the extent he considers practicable, rely on any internal audit of the corporation being audited that is conducted pursuant to subsection 131(3). 1991, c. 24, s. 42.

Errors and omissions

133. (1) A director or officer of a Crown corporation shall forthwith notify the auditor and the audit committee of the corporation, if any, of any error or omission of which the director or officer becomes aware in a financial statement that the auditor or a former auditor has reported on or in a report prepared by the auditor or a former auditor pursuant to section 132.

Idem

(2) Where an auditor or former auditor of a Crown corporation is notified or becomes aware of any error or omission in a financial statement that the auditor or former auditor has reported on or in a report prepared by the auditor or former auditor pursuant to section 132, he shall forthwith notify each director of the corporation of the error or omission if he is of the opinion that the error or omission is material.

Correction

(3) Where an auditor or former auditor of a Crown corporation notifies the directors of an error or omission in a financial statement or report pursuant to subsection (2), the corporation shall prepare a revised financial statement or the auditor or former auditor shall issue a correction to the report, as the case may be, and a copy thereof shall be given to the appropriate Minister. 1984, c. 31, s. 11.

Auditors

Appointment of auditor

134. (1) The auditor of a parent Crown corporation shall be appointed annually by the Governor in Council, after the appropriate Minister has consulted the board of directors of the corporation, and may be removed at any time by the Governor in Council, after the appropriate Minister has consulted the board.

Auditor General

(2) On and after January 1, 1989, the Auditor General of Canada shall be appointed by the Governor in Council as the auditor, or a joint auditor, of each parent Crown corporation named in Part I of Schedule III, unless the Auditor General waives the requirement that he be so appointed.

Idem

(3) Subsections (1) and (2) do not apply in respect of any parent Crown corporation the auditor of which is specified by any other Act of Parliament to be the Auditor General of Canada, but the Auditor General is eligible to be appointed the auditor, or a joint auditor, of a parent Crown corporation pursuant to subsection (1) and section 135 does not apply to him.

Exception

(4) Notwithstanding subsection (1), where the report referred to in subsection 132(1) is to be prepared in respect of a wholly-owned subsidiary separately, the board of directors of the parent Crown corporation that wholly owns the subsidiary shall, after consultation with the board of directors of the subsidiary, appoint the auditor of the subsidiary, and subsections (6) and sections 135 to 137 apply in respect of that auditor as though the references therein to a parent Crown corporation were references to the subsidiary.

Criteria for appointment

(5) The Governor in Council may make regulations prescribing the criteria to be applied in selecting an auditor for appointment pursuant to subsection (1) or (4).

Re-appointment

(6) An auditor of a parent Crown corporation is eligible for re-appointment on the expiration of his appointment.

Continuation in office	<p>(7) Notwithstanding subsection (1), if an auditor of a parent Crown corporation is not appointed to take office on the expiration of the appointment of an incumbent auditor, the incumbent auditor continues in office until his successor is appointed. 1984, c.31, s.11.</p>
Persons not eligible	<p>135. (1) A person is disqualified from being appointed or re-appointed or continuing as an auditor of a parent Crown corporation pursuant to section 134 if that person is not independent of the corporation, any of its affiliates, or the directors or officers of the corporation or any of its affiliates.</p>
Independence	<p>(2) For the purpose of this section,</p> <ul style="list-style-type: none">(a) independence is a question of fact; and(b) a person is deemed not to be independent if that person or any of his business partners<ul style="list-style-type: none">(i) is a business partner, director, officer or employee of the parent Crown corporation or any of its affiliates, or a business partner of any director, officer or employee of the corporation or any of its affiliates,(ii) beneficially owns or controls, directly or indirectly through a trustee, legal representative, agent or other intermediary, a material interest in the shares or debt of the parent Crown corporation or any of its affiliates, or(iii) has been a receiver, receiver–manager, liquidator or trustee in bankruptcy of the parent Crown corporation or any of its affiliates within two years of his proposed appointment as auditor of the corporation.
Resignation	<p>(3) An auditor of a parent Crown corporation who becomes disqualified under this section shall resign forthwith after becoming aware of his disqualification. 1984, c.31, s.11.</p>
Qualifications preserved	<p>136. Nothing in sections 134 and 135 shall be construed as empowering the appointment, re–appointment or continuation in office as an auditor of a parent Crown corporation of any person who does not meet any qualifications for such appointment, re–appointment or continuation established by any other Act of Parliament. 1984, c. 31, s. 11.</p>
Resignation	<p>137. A resignation of an auditor of a parent Crown corporation becomes effective at the time the corporation receives a written resignation from the auditor or at the time specified in the resignation, whichever is later. 1984, c. 31, s. 11.</p>
Special Examination	
Special examination	<p>138. (1) Each parent Crown corporation shall cause a special examination to be carried out in respect of itself and its wholly–owned subsidiaries, if any, to determine if the systems and practices referred to in paragraph 131(1)(b) were, in the period under examination, maintained in a manner that provided reasonable assurance that they met the requirements of paragraphs 131(2)(a) and (c).</p>
Time for examination	<p>(2) A special examination shall be carried out at least once every five years and at such additional times as the Governor in Council, the appropriate Minister or the board of directors of the corporation to be examined may require.</p>

Plan

(3) Before an examiner commences a special examination, he shall survey the systems and practices of the corporation to be examined and submit a plan for the examination, including a statement of the criteria to be applied in the examination, to the audit committee of the corporation, or if there is no audit committee, to the board of directors of the corporation.

Resolution of disagreements

(4) Any disagreement between the examiner and the audit committee or board of directors of a corporation with respect to a plan referred to in subsection (3) may be resolved

- (a) in the case of a parent Crown corporation, by the appropriate Minister; and
- (b) in the case of a wholly-owned subsidiary, by the parent Crown corporation that wholly owns the subsidiary.

Reliance on internal audit

(5) An examiner shall, to the extent he considers practicable, rely on any internal audit of the corporation being examined conducted pursuant to subsection 131(3). 1984, c.31, s.11.

Report

139. (1) An examiner shall, on completion of the special examination, submit a report on his findings to the board of directors of the corporation examined.

Contents

- (2) The report of an examiner under subsection (1) shall include
 - (a) a statement, whether in the examiner's opinion, with respect to the criteria established pursuant to subsection 138(3), there is reasonable assurance that there are no significant deficiencies in the systems and practices examined; and
 - (b) a statement of the extent to which the examiner relied on internal audits. 1984, c.31, s.11.

Special report of appropriate Minister

140. Where the examiner of a parent Crown corporation, or a wholly owned subsidiary of a parent Crown corporation, named in Part I of Schedule III is of the opinion that his report under subsection 139(1) contains information that should be brought to the attention of the appropriate Minister, he shall, after consultation with the board of directors of the corporation, or with the board of the subsidiary and corporation, as the case may be, report that information to the Minister and furnish the board or boards with a copy of the report. 1984, c.31, s.11.

Special report to Parliament

141. Where the examiner of a parent Crown corporation, or a wholly-owned subsidiary of a parent Crown corporation, named in Part I of Schedule III of the opinion that his report under subsection 139(1) contains information that should be brought to the attention of Parliament, he shall, after consultation with the appropriate Minister and the board of directors of the corporation, or with the boards of the subsidiary and corporation, as the case may be, prepare a report thereon for inclusion in the next annual report of the corporation and furnish the board or boards, the appropriate Minister and the Auditor General of Canada with copies of the report. 1984, c.31, s.11.

Examiner

142. (1) Subject to subsections (2) and (3), a special examination referred to in section 138 shall be carried out by the auditor of a parent Crown corporation.

Idem

(2) Where, in the opinion of the Governor in Council, a person other than the auditor of a parent Crown corporation should carry out a special examination, the Governor in Council may, after the appropriate Minister has consulted the board of directors of the corporation, appoint an auditor who is qualified for the purpose to carry out the examination in lieu of the

auditor of the corporation and may, after the appropriate Minister has consulted the board, remove that qualified auditor at any time.

Exception (3) Where a special examination is to be carried out in respect of a wholly-owned subsidiary separately, the board of directors of the parent Crown corporation that wholly owns the subsidiary shall, after consultation with the board of directors of the subsidiary, appoint the qualified auditor who is to carry out the special examination.

Applicable provisions (4) Subject to subsection (5), sections 135 and 137 apply in respect of an examiner as though the references therein to an auditor were references to an examiner.

Auditor General eligible (5) The Auditor General of Canada is eligible to be appointed an examiner and section 135 does not apply to the Auditor General of Canada in respect of such an appointment. 1984, c. 31, s. 11.

Consultation with Auditor General

Consultation with Auditor General 143. The auditor or examiner of a Crown corporation may at any time consult the Auditor General of Canada on any matter relating to his audit or special examination and shall consult the Auditor General with respect to any matter that, in the opinion of the auditor or examiner, should be brought to the attention of Parliament pursuant to paragraph 132(2)(b) or section 141. 1984, c. 31, s. 11.

Right to Information

Right to Information 144. (1) On the demand of the auditor or examiner of a Crown corporation, the present or former directors, officers, employees or agents of the corporation shall furnish such

(a) information and explanations, and

(b) access to records, documents, books, accounts and vouchers of the corporation or any of its subsidiaries

as the auditor or examiner considers necessary to enable him to prepare any report as required by this Division and that the directors, officers, employees or agents are reasonably able to furnish.

Idem (2) On the demand of the auditor or examiner of a Crown corporation, the directors of the corporation shall

(a) obtain from the present or former directors, officers, employees or agents of any subsidiary of the corporation such information and explanations as the auditor or examiner considers necessary to enable him to prepare any report as required by this Division and that the present or former directors, officers, employees or agents are reasonably able to furnish; and

(b) furnish the auditor or examiner with the information and explanations so obtained.

Reliance on reports (3) An auditor or examiner of a Crown corporation may reasonably rely on any report of any other auditor or examiner. 1984, c. 31, s. 11.

Policy

Restriction

145. Nothing in this Part or the regulations shall be construed as authorizing the auditor or examiner of a Crown corporation to express any opinion on the merits of matters of policy, including the merits of

- (a) the objects or purposes for which the corporation is incorporated, or the restrictions on the businesses or activities that it may carry on, as set out in its charter;
- (b) the objectives of the corporation; and
- (c) any business or policy decision of the corporation or of the Government of Canada.

1984, c. 31, s. 11.

Qualified Privilege

Qualified privilege

146. Any oral or written statement or report made under this Part or the regulations by the auditor or a former auditor, or the examiner or a former examiner, of a parent Crown corporation or a wholly-owned subsidiary has qualified privilege. 1991, c. 24, s. 43.

Costs

Cost of audit and examination

147. (1) The amounts paid to an auditor or examiner of a Crown corporation for preparing any report under section 132, 139, 140 or 141 shall be reported to the President of the Treasury Board.

Idem

(2) Where the Auditor General of Canada is the auditor or examiner of a Crown corporation, the costs incurred by him in preparing any report under section 132, 139, 140 or 141 shall be disclosed in the next annual report of the Auditor General and be paid out of the moneys appropriated for his office. 1984, c. 31, s. 11.

Audit Committee

Audit committee

148. (1) Each parent Crown corporation that has four or more directors shall establish an audit committee composed of not less than three directors of the corporation, the majority of whom are not officers or employees of the corporation or any of its affiliates.

Idem

(2) In the case of a parent Crown corporation that has less than four directors, the board of directors of the corporation constitutes the audit committee of the corporation and shall perform the duties and functions assigned to an audit committee by any provision of this Part and the provision shall be construed accordingly.

Duties

- (3) The audit committee of a parent Crown corporation shall
 - (a) review, and advise the board of directors with respect to, the financial statements that are to be included in the annual report of the corporation;
 - (b) oversee any internal audit of the corporation that is conducted pursuant to subsection 131(3);

(c) review, and advise the board of directors with respect to, the annual auditor's report of the corporation referred to in subsection 132(1);

(d) in the case of a corporation undergoing a special examination, review, and advise the board of directors with respect to, the plan and reports referred to in sections 138 to 141; and

(e) perform such other functions as are assigned to it by the board of directors or the charter or by-laws of the corporation.

Auditor's or examiner's attendance

(4) The auditor and any examiner of a parent Crown corporation are entitled to receive notice of every meeting of the audit committee and, at the expense of the corporation, to attend and be heard at each meeting; and, if so requested by a member of the audit committee, the auditor or examiner shall attend any or every meeting of the committee held during his term of office.

Calling meeting

(5) The auditor or examiner of a parent Crown corporation or a member of the audit committee may call a meeting of the committee.

Wholly-owned subsidiary

(6) Where the report referred to in subsection 132(1) is to be prepared in respect of a wholly-owned subsidiary separately, subsections (1) to (5) apply, with such modifications as the circumstances require, in respect of the subsidiary as though

(a) the references in subsections (1) to (5) to a parent Crown corporation were references to the subsidiary; and

(b) the reference in paragraph (3)(a) to the annual report of the corporation were a reference to the annual report of the parent Crown corporation that wholly owns the subsidiary. 1984, c. 31, s. 11.

Reports

Accounts, etc. to Treasury Board or appropriate Minister

149. (1) A parent Crown corporation shall provide the Treasury Board or the appropriate Minister with such accounts, budgets, returns, statements, documents, records, books, reports or other information as the Board or appropriate Minister may require.

Reports on material developments

(2) The chief executive officer of a parent Crown corporation shall, as soon as reasonably practicable, notify the appropriate Minister, the President of the Treasury Board and any director of the corporation not already aware thereof of any financial or other developments that, in the chief executive officer's opinion, are likely to have a material effect on the performance of the corporation, including its wholly-owned subsidiaries, if any, relative to the corporation's objectives or on the corporation's requirements for funding.

Reports on wholly-owned subsidiaries

(3) Each parent Crown corporation shall forthwith notify the appropriate Minister and the President of the Treasury Board of the name of any corporation that becomes or ceases to be a wholly-owned subsidiary of the corporation. 1984, c. 31, s. 11.

Annual report

150. (1) Each parent Crown corporation shall, as soon as possible, but in any case within three months, after the termination of each financial year submit an annual report on the operations of the corporation in that year concurrently to the appropriate Minister and the President of the Treasury Board, and the appropriate Minister shall cause a copy of the report to be laid before each House of Parliament on any of the first fifteen days on which that House is sitting after he receives it.

Reference to committee

(2) An annual report laid before Parliament pursuant to subsection (1) stands permanently referred to such committee of Parliament as may be designated or established to review matters relating to the businesses and activities of the corporation submitting the report.

Form and contents

(3) The annual report of a parent Crown corporation shall include

- (a) the financial statements of the corporation referred to in section 131,
- (b) the annual auditor's report referred to in subsection 132(1),
- (c) a statement on the extent to which the corporation has met its objectives for the financial year,
- (d) such quantitative information respecting the performance of the corporation, including its wholly-owned subsidiaries, if any, relative to the corporation's objectives as the Treasury Board may require to be included in the annual report, and
- (e) such other information as is required by this or any other Act of Parliament, or by the appropriate Minister, the President of the Treasury Board or the Minister of Finance, to be included in the annual report,

and shall be prepared in a form that clearly sets out information according to the major businesses or activities of the corporation and its wholly-owned subsidiaries, if any.

Idem

(4) In addition to any other requirements under this Act or any other Act of Parliament, the Treasury Board may, by regulation, prescribe the information to be included in annual reports and the form in which such information is to be prepared. 1991, c. 24, s. 49.

Annual consolidated report

151. (1) The President of the Treasury Board shall, not later than December 31 of each year, cause a copy of an annual consolidated report on the businesses and activities of all parent Crown corporations for their financial years ending on or before the previous July 31 to be laid before each House of Parliament.

Reference to committee

(2) An annual consolidated report laid before Parliament pursuant to subsection (1) stands permanently referred to such committee of Parliament as may be designated or established to review matters relating to Crown corporations.

Contents

(3) The annual consolidated report referred to in subsection (1) shall include

- (a) a list naming, as of a specified date, all Crown corporations and all corporations of which any shares are held by, on behalf of or in trust for the Crown or any Crown corporation;
- (b) employment and financial data, including aggregate borrowings of parent Crown corporations; and
- (c) such other information as the President of the Treasury Board may determine. 1984, c. 31, s. 11.

Annual report

152. (1) The President of the Treasury Board shall, not later than December 31 of each year, cause to be laid before each House of Parliament a copy of a report indicating the

summaries and annual reports that under this Part were to be laid before that House by July 31 in that year, the time at, before or within which they were to be laid and the time they were laid before that House.

Attest

(2) The accuracy of the information contained in the report referred to in subsection (1) shall be attested by the Auditor General of Canada in the Auditor General's report to the House of Commons. 1991, c. 24, s. 44.

Appendix C

Reports of the
Standing Committee on
Public Accounts to the
House of Commons

REPORT TO THE HOUSE

Thursday, April 28, 1994

The Standing Committee on Public Accounts has the honour to present its

FIRST REPORT

Pursuant to Standing Order 108(3)(d), the Committee considered Chapter 5 of the 1993 Auditor General's Report (Information for Parliament — Understanding Deficits and Debt).

Introduction

Everyone agrees that the issue of deficits and debt is a major concern of Canadians. Canadians should therefore have an opportunity to become well informed about Canada's current economic and fiscal situation and the related challenges that it will face in the future.

Responsibility for making decisions on behalf of all Canadians, for passing and amending legislation, for making appropriations and for deciding how the funds will be used, lies with Parliament. Members of Parliament must at all times account for their actions and explain the consequences of these to their constituents. It is therefore essential that legislators have access to high-quality information. Hence, it was with this in mind that the Committee decided to begin its proceedings with the consideration of Chapter 5 of the Auditor General's Report. Indeed, the Committee believes that information could be communicated to Parliament more simply and on a more regular basis.

Background

For many years, the Auditor General has been advocating the importance of information that is of high quality and, especially, easy to understand. In his 1991 report, he proposed a scorecard whereby Canadians could better assess the government's performance in terms of discrepancies between economic forecasts and actual results. Canadians could then easily determine whether the government was deviating from its forecasts and, if so, to what extent. In his 1992 report, the Auditor General proposed publishing simple indicators on the government's financial condition. In his most recent report, he went one step further by proposing a set of indicators which would present the financial situation in a simple, easily understood format.

During the two meetings held on Chapter 5, the Committee inquired into how the Department of Finance and the Treasury Board (Office of the Comptroller General) performed their duties in terms of providing the public the necessary information for understanding deficits and debt. In addition to focusing on the actual content of the information, the Committee also discussed whether the methods used to communicate this information were adequate.

A. Methods of communicating information

The Committee supports the Department of Finance in its plan to take concrete steps to improve the timeliness and readability of its financial information, while preserving the necessary detail. The government is committed to changing the budget documents to make them easier to understand. In addition, the various versions of "The Fiscal Monitor" are being improved and should include the indicators proposed by the Auditor General.

The Committee asks the Department of Finance to pursue its initiative of issuing an annual financial report, which will appear earlier than and separate from the Public Accounts and be presented in a format similar to that

found in the private sector. This annual financial report will contain, among other things, condensed financial statements and 10-year tables of financial data.

The Committee believes, however, that this document will be useful only to the extent that it contains easily understood information. The Committee therefore recommends:

That the Department of Finance consider the recommendations in this report in order to incorporate them in its next annual financial report;

That the Department of Finance consult the Committee, not later than four weeks after this report is tabled, in order to discuss the detailed outline of its financial report so that the Committee can comment on this report before it is published.

The Committee is also of the opinion that the information in the report must be sound. At present, the government's condensed financial statements published in the Public Accounts are not audited in the same way as the detailed financial statements. The Committee therefore recommends:

That the Auditor General audit the condensed financial statements of the Government of Canada beginning with the 1993-1994 fiscal year and in all subsequent fiscal years.

B. Publication of simple indicators

The Committee firmly believes that the publication of indicators is a step towards an understanding of debt and deficits. Indeed, in the Committee's view, simple methods such as the publication of indicators can be used to encourage Canadians to take a greater interest in Canada's economic and fiscal situation.

The Committee recognizes the need to devise a few, simple, regularly reported indicators that would present historical trends. A consensus appears to have emerged around the five indicators proposed by the Auditor General in his report. These are as follows: (1) the interest bite; (2) the program share; (3) the tax bite; (4) the expenditure ratio and (5) the debt-to-GDP ratio. A definition of each of these indicators is included in Appendix A.

The Committee supports the publication of the five indicators proposed by the Auditor General. The Department of Finance also supports this position, as it will be using the same five indicators. These indicators are already provided in Section 1, Volume 1, of the Public Accounts and the government plans to include them in its annual financial report and in its periodic reports. The Committee believes that this will make it possible for the indicators to be more widely distributed.

The Committee fully agrees that there should be only a few such indicators. However, the Committee does not wish to exclude the possibility of adding other indicators to the existing list, in the future. For example, the Committee believes that it might be appropriate to include an indicator to reflect Canada's foreign indebtedness.

In the Committee's view, it is also important that the indicators reflect, insofar as possible, the national situation. As the Auditor General has said many times, while there are several levels of government, there is only one taxpayer. The Committee acknowledges that there are some inconsistencies in accounting policies among the various jurisdictions. However, it believes that efforts ought to be made in order to eliminate the differences among these accounting policies. In this regard, the Committee welcomes the planned study by the Canadian Institute of Chartered Accountants (CICA) of the indicators of the financial condition of the federal and provincial governments. The Committee therefore recommends:

That the Department of Finance consider the conclusions and recommendations of the CICA study when that study is completed. In the meantime, the Committee suggests that the Department of

Finance increase its efforts to promote standardization of financial reporting with the provinces in order to speed up the publication of national indicators.

C. Scorecard

The government currently publishes two types of scorecards: one in the budget plan, the other in Section 1, Volume 1, of the Public Accounts. The Committee, nevertheless, believes that some of the elements required to provide a complete picture of the government's targets, variances and the reasons for those variances are missing in both of these scorecards. The Committee believes that a single scorecard is sufficient, provided it is understandable. In the Committee's view, a scorecard should include a table containing a breakdown of revenues and expenditures, budget forecasts, actual results and variances for each category. An explanation of the variances of each category should also be included in the scorecard. The Committee therefore recommends:

That the Department of Finance and the Treasury Board review the two existing scorecards and consider the Committee's suggestions. Regardless of the format chosen, the Department of Finance and the Treasury Board should ensure that the presentation of the scorecard remains consistent from one year to the next.

D. Publication of indicators on future trends

In addition to information on the government's past and current financial condition, the Committee believes that it is necessary to provide indicators on future trends. A projection of the longer-term results of current government policy directions is essential to an understanding of the present situation. In the Committee's view, these indicators of future trends will help Canadians become more aware of the potential impact on the debt if the government fails to reach its objectives. In this regard, the Committee is pleased with the intention of the Department of Finance to present documents providing a longer-term perspective, from both the economic and budgetary standpoints. However, in order to secure more specific commitments, the Committee recommends:

That the long-term projections of the Department of Finance cover a 5-year period. The Department of Finance should plan to include the indicators proposed by the Auditor General, namely the debt-to-GDP ratio, the interest bite, the expenditure ratio and especially the full cost of accumulating annual deficits. The Department of Finance should also consider including an indicator that would make it possible to assess the impact of foreign indebtedness.

E. Participation in the budget process

It is undeniable that one must have good information in order to be able to participate more effectively in the budget process. During the Committee's two meetings on deficits and debt, the Department of Finance many times mentioned its plans to take the necessary steps for making the documents more readable and more timely. The Committee feels that the Department must continue with the pre-budget consultations, which, beginning next fall, will include public hearings under the aegis of the House of Commons Standing Committee on Finance. The Committee believes that the government should increase its efforts to open up the budget process so as to assure Canadians that they will be heard.

In the Committee's view, the issue of deficits and debt should be discussed not only during pre-budget consultations but continuously. The Committee, moreover, encourages all Members of Parliament to use the indicators, among other things, to explain Canada's economic and fiscal situation more easily to their constituents.

Definitions of the five indicators of the government's financial condition

The **interest bite** measures the share of government revenues that goes towards paying the interest on the debt.

The **program share** measures the amount of revenues that is devoted to program spending, that is, the funds allocated to pay for the goods and services delivered by the government.

The **expenditure ratio** brings together program spending and interest costs and sheds light on whether total spending exceeds revenues.

The **tax bite** measures tax revenues as a percentage of national income or the Gross Domestic Product (GDP).

The **debt-to-GDP ratio** measures the total volume of debt in the context of national income.

Pursuant to Standing Order 109, the Committee requests the government to table a comprehensive response to this report.

A copy of the relevant *Minutes of Proceedings and Evidence (Issues Nos. 2, 3, 6 and 7 which includes this Report)* is tabled.

Respectfully submitted,

Richard Bélisle,

Chair.

**Dissenting Opinion of Gilbert Fillion and
René Laurin of the Bloc Québécois**

That the report be amended by the insertion, at the end of the section—B. Publication of simple indicators—, of the following paragraph:

If taxpayers are to understand fully the evolution of the deficit and the debt, they must be in a position to understand fully Canada's economic situation, because the financial situation depends on the state of the economy. The Committee therefore recommends:

That the Department of Finance shall at regular intervals make public, in addition to the indicators it already publishes, the following economic predictors (for the short, medium and long terms) and the most recent forecasts by the Department of Finance involving these predictors, so that taxpayers can assess the Department's forecasts and the anticipated state of the economy:

- **real gross domestic product (economic activity)**
- **unemployment rate (national and provincial)**
- **employment growth rate**
- **inflation rate (based on the CPI)**
- **exports and imports**
- **investments**
- **interest rates;**

as well as the following financial predictors:

- **federal government revenues:**
 - **personal and corporate income tax**
 - **GST and other taxes**
 - **unemployment insurance premiums**
 - **total revenues;**
- **federal government expenditures:**
 - **operating**
 - **capital**
 - **transfers to the provinces**
 - **transfers to individuals**
 - **unemployment insurance benefits**
 - **total expenditures.**

REPORT TO THE HOUSE

Tuesday, May 24, 1994

The Standing Committee on Public Accounts has the honour to presents its

SECOND REPORT

In accordance with its Order of Reference of Thursday, February 24, 1994, your Committee has considered Vote 30 under FINANCE in the Main Estimates for the fiscal year ending March 31, 1995 and has agreed to report the following:

The Committee met with the Auditor General on April 27, 1994 to review the estimates for the Office of the Auditor General, hereinafter referred to as "the Office", for fiscal year 1994-95. The meeting provided members of the Committee with an opportunity to ask questions about the role of the Office and the availability of sufficient funds to fulfil its mandate. During its discussion with the Auditor General, the Committee raised the following concerns:

- The Office's ability to examine overlap and duplication within government.
- The Office's ability to examine unanticipated problems that require immediate attention.
- Whether the Office has sufficient staff and resources to fulfil its mandate.
- The impact on the Office's budget should the Auditor General be given the mandate to report to Parliament more than once a year.
- Levels of overtime worked in preparation for the annual report. (The Auditor General indicated that overtime costs might be reduced should Bill C-207 be adopted).
- The balance between professional and support services positions at the Office. A concern was expressed that the greatest reduction in staffing has occurred at the technical support level; this might affect the quality of work done by professionals who might have to assume a greater burden of the support services themselves.

While the Committee received reassurances from the Auditor General in these areas, some concerns remained:

- While the Committee is satisfied that the Office of the Auditor General has the funding it requires to fulfil its mandate for this fiscal year, it is nevertheless concerned that the ability of the Office to do its job not be unduly constrained in the years to come.
- Employment equity: The Auditor General was questioned about employment equity at the Office. The Committee was pleased to note that in a number of respects, the Office has met or exceeded the targets set for the public service. For example, women make up 17.7% of the management category while the target has been set at 15%. In the science and professional categories, the target for women is 24%; 50% of the positions in this area at the Office are filled by women. In other areas, however, the Office's record is less impressive. For example, the number of positions held by indigenous people and those with disabilities in the management sector is below the established targets. The Committee notes the efforts being made to meet targets and intends to review progress when it examines the Office's estimates for fiscal year 1995-96.

In general, however, the Committee was pleased to note that through careful management and the implementation of productivity improvements, the Office of the Auditor General has been able to reduce its expenditures for fiscal year 1994-95 by \$3.8 million or 6.3% of last year's requirements. Of this reduction, the largest portion — \$2.0 million — comes as a result of voluntary restraint on the part of the Office.

The Committee congratulates the Auditor General and his Office on their ability to reduced their expenditures while at the same time continuing to provide information to Canadians and Parliament that is of the highest quality and utility.

Other departments and agencies of government that are currently looking for ways to provide better service at reduced cost to Canadians might well look to the Office of the Auditor General which is certainly one of the models to follow.

A copy of the relevant *Minutes of Proceedings and Evidence (Issues Nos. 7 and 9 which includes this Report)* is tabled.

Respectfully submitted,

Richard Bélisle,

Chair.

REPORT TO THE HOUSE

Tuesday, May 24, 1994

The Standing Committee on Public Accounts has the honour to present its

THIRD REPORT

In accordance with its Order of Reference of Thursday, February 24, 1994, your Committee has considered Vote 30 under FINANCE in the Main Estimates for the fiscal year ending March 31, 1995 and reports the same.

A copy of the relevant *Minutes of Proceedings and Evidence (Issues Nos. 7 and 9 which includes this Report)* is tabled.

Respectfully submitted,

Richard Bélisle,

Chair.

REPORT TO THE HOUSE

Monday, June 6, 1994

The Standing Committee on Public Accounts has the honour to present its FOURTH REPORT

In accordance with its Order of Reference of Tuesday, May 3, 1994, your Committee has considered Bill C-207, an Act to amend the Auditor General Act (reports), and has agreed to report it with the following amendment:

Clause 1

Strike out lines 4 to 11, on page 1, and substitute the following therefor:

“1. The portion of subsection 7(1) of the *Auditor General Act* before paragraph (a) is replaced by the following:

7. (1) The Auditor General shall report annually to the House of Commons and may make, in addition to any special report made under subsection 8(1), not more than three additional reports in any year to the House of Commons“.

Clause 2

Strike out lines 14 to 24, on page 1, and substitute the following therefor:

“(3) Each annual report by the Auditor General to the House of Commons shall be submitted to the Speaker of the House of Commons on or before December 31 in the year to which the report relates and the Speaker of the House of Commons shall lay each such report before the House of Commons forthwith after receiving it or, if that House is not then sitting, on any of the first fifteen days on which that House is sitting after the Speaker receives it.

(4) Where the Auditor General proposes to make an additional report under subsection (1), the Auditor General shall send written notice to the Speaker of the House of Commons of the subject-matter of the proposed report.

(5) Each additional report of the Auditor General to the House of Commons made under subsection (1) shall be submitted to the House of Commons on the expiration of thirty days after the notice is sent pursuant to subsection (4) or any longer period that is specified in the notice and the Speaker of the House of Commons shall lay each such report before the House of Commons forthwith after receiving it or, if that House is not then sitting, on any of the first fifteen days on which that House is sitting after the Speaker receives it“.

Clause 3

Strike out lines 27 to 31, on page 1, and substitute the following therefor:

“8. (1) The Auditor General may make a special report to the House of Commons on any matter of pressing importance or urgency that, in the opinion of the Auditor General, should not be deferred until the presentation of the next report under subsection 7(1)“.

Clause 4

Delete Clause 4.

Clause 5

Delete Clause 5.

Your Committee has ordered. — That the Bill, as amended, be reprinted as a working copy for the use of the House of Commons at Report Stage.

A copy of the *Minutes of Proceedings and Evidence* relating to this Bill (*Issues Nos. 10, 12 and 13 which includes this Report*) is tabled.

Respectfully submitted,

Richard Bélisle,

Chair.

REPORT TO THE HOUSE

Tuesday, June 21, 1994

The Standing Committee on Public Accounts has the honour to present its

FIFTH REPORT

Pursuant to Standing Order 108(3)(d), your Committee has considered chapter 15 of the 1993 Report of the Auditor General and has agreed to report as follows:

A. Introduction

The Committee held two meetings to examine chapter 15 of the 1993 Annual Report of the Auditor General (Department of Fisheries and Oceans, Northern Cod Adjustment and Recovery Program).

The Committee is concerned that not all government programs include proper financial controls. It is also of the belief that full scrutiny and approval, by Parliament, of the programs for which it allocates funds, is a vital component of the legislative function. In the case of the Northern Cod Adjustment and Recovery Program (NCARP), these needs were not met fully.

Now that NCARP has ended, the Committee strongly believes that some valuable lessons have been learned from it. These lessons have considerable relevance for the development and implementation of future programs, and ultimately for the way in which Parliament conducts its affairs. It is out of concern that the kinds of problems experienced by NCARP be either averted or diminished in the future that the Committee makes its report and recommendations.

B. Background

On 2 July 1992, the government responded to a sharp decline in Northern cod stocks on Canada's East coast by imposing a two-year moratorium on the fishery. This ban affected thousands of fishers and plant workers in Newfoundland and Labrador and the lower north shore of Quebec: it has been called the largest layoff in Canadian history.

At the same time that the moratorium was announced, the government indicated that those affected would receive emergency income assistance while a longer-term program to address the crisis was being developed by the Department of Fisheries and Oceans (hereafter cited as DFO or the Department). The long-term program was to last for the duration of the moratorium.

Action to help those who lost their livelihoods as a consequence of the moratorium was swift. Within ten days of the announcement the first income replacement cheques had been sent out. Four weeks later, the details of the long-term program (Northern Cod Adjustment and Recovery Program) were announced.

The Northern Cod Adjustment and Recovery Program (NCARP) had two basic objectives. The first was to replace the income lost by those affected by the moratorium. The second involved restructuring the fishery so that it would be better able to sustain itself once the moratorium had ended.

The Department of Fisheries and Oceans was responsible for delivering the income replacement and adjustment components of NCARP. In order to achieve the latter, the Department provided incentives to reduce the

number of licences available for fishing Northern cod and offered an early retirement option to qualified individuals. Of a total estimated cost of \$920 million, \$527 million would be spent by DFO for its responsibilities under NCARP.

NCARP was based on the assumption that the moratorium would end after two years. However, cod stocks have not recovered to the extent hoped for: in December 1993, the government announced that the ban on cod fishing would be extended indefinitely. On 16 May 1994, NCARP expired: it has been replaced by the Atlantic Groundfish Strategy (TAGS). This program is slated to last five years and will spend more than \$1.6 billion.

The Committee recognizes that the Department of Fisheries and Oceans, despite a number of substantial constraints, was obliged to develop and implement NCARP in a timely fashion. The Department had to respond to a situation for which there was no precedent, although there were signs that a stock decline in the fishery was imminent. Nevertheless, the Committee has learned from the Auditor General's Report and evidence gathered during its hearings on this issue that the program and especially the process behind it suffered from a number of serious problems.

The Committee's principal concerns are focused on two issues that have emerged from its study of NCARP: the need for substantive legislative authority for programs Parliament has voted funds for and the importance of proper financial controls for all programs.

C. Legislative Authority

In order to conduct and fund its activities and programs, the government requires the authorization of Parliament. Government seeks this authorization in two ways. First, it may present Parliament with new legislation which, if adopted, will authorize government to conduct certain programs and to spend funds for the purposes described in the legislation. As an alternative, it may determine that sufficient authorization is contained in legislation already passed by Parliament. A second form of authorization is sought from Parliament in the form of annual appropriations which allocate funds for purposes Parliament has already approved.

In the case of NCARP, government clearly satisfied the second condition, receiving the funds to pay for the program through the Supplementary Estimates for 1992-93 and the Estimates for 1993-94.

Rather than tabling new legislation for NCARP, the government determined that it possessed sufficient authority to conduct the program under the *Atlantic Fisheries Restructuring Act* (AFRA).

However, the Auditor General informed the Committee that AFRA did not provide the clear and substantive legislative authority that was necessary. This assessment was partially confirmed by Treasury Board Secretariat which told the Committee that prior, substantive legislative authority for NCARP was not definitive.

Treasury Board Secretariat argued, however, that the grants paid out under NCARP constituted a form of government expenditure that did not require — in its view — legislative authority from Parliament.

During the Committee meeting, Treasury Board Secretariat indicated that it would be examining this issue in consultation with the Auditor General and the Privy Council Office. Treasury Board Secretariat made a commitment to communicate a formal government position to the Committee by the Fall.

The Committee supports Treasury Board Secretariat's intention and wishes to ensure that it produces results. The Committee therefore recommends:

That Treasury Board Secretariat carry out its intention to develop a government position on the issue of when it is appropriate to use grants listed in the Estimates to introduce a new expenditure item where the legislative authority is not clear.

That Treasury Board Secretariat consult the Office of the Auditor General on a regular basis in the preparation of this position.

That Treasury Board Secretariat submit the completed document to the Committee no later than Fall, 1994.

Apart from the specific example of NCARP, the Committee is concerned generally about legislating through the Estimates. Accordingly, the Committee has endeavoured to identify ways in which Parliament may be assured that it will not be asked to approve funding for programs that lack clear legislative authority.

The Committee believes that steps can be taken that will help assure parliamentarians that the funding they approve will be for programs and activities Parliament has sanctioned. These measures will also help ensure that when government asks for funding from Parliament, it does so only after it has established that it has prior legislative authority to act or commits itself to introduce appropriate new legislation. Accordingly, the Committee recommends:

That the format of the Estimates be changed to show the legislative or regulatory authorities for each Vote.

The Committee also notes that Treasury Board currently has the responsibility of verifying that the expenditures proposed in the Estimates and Supplementary Estimates are backed by sufficient statutory authorities. The Committee therefore recommends:

That the Estimates and Supplementary Estimates contain a statement to the effect that Treasury Board has verified that the proposed expenditures are backed by sufficient statutory authority.

D. Financial Management and Control

The presence of proper financial controls is essential if government programs are to fulfil their purposes efficiently and in a cost-effective manner. Such controls should be embedded in the framework of all programs — particularly those with large expenditures — and ideally should be present from the moment a program is implemented.

There are two components to proper financial control: the involvement of departmental comptrollers (Senior Financial Officers) in the development and implementation of programs and monitoring and support for the comptrollership function in departments by the Comptroller General.

The Role of Departmental Senior Financial Officers

The Department of Fisheries and Oceans' Senior Financial Officer was not involved in the development and implementation of NCARP. As a result, the program experienced financial management and control problems.

The fact that the Department's Senior Financial Officer was not involved in designing the program and that adequate financial controls were not in place at the implementation stage, is of great concern to the Committee. It is the Committee's belief that had the Senior Financial Officer participated in the development of NCARP, the program would have contained the necessary controls and would not have suffered from the financial management problems that it did.

Although the Department has indicated that it has rectified this shortcoming in designing the replacement program for NCARP, the Committee is anxious that this problem be prevented from occurring in other departments. It therefore recommends:

That departments always include their Senior Financial Officers and the Office of the Comptroller General in the development and implementation of all new programs in order to ensure that the proper financial controls are in place before any program is put in operation.

The Committee also recommends:

That when departments establish programs in response to emergency situations, their Senior Financial Officers build a series of incremental financial controls into those programs from the outset and draw on any resources within government that will assist in the planning of the program.

Finally, the Committee wishes to make sure that when Senior Financial Officers find themselves in conflict with their departments, they convey this information to the Comptroller General. Accordingly, the Committee recommends:

That Senior Financial Officers, when they are in disagreement with their departments that cannot be internally resolved, communicate this information to the Comptroller General.

The Relationship Between the Comptroller General and Departmental Senior Financial Officers

The Committee is of the belief that prompt and decisive action by the Comptroller General might have ensured that the Department of Fisheries and Oceans' Senior Financial Officer was involved in developing NCARP and that the program had adequate financial controls.

In order to ensure that this will happen in the future, a change in the relationship between Treasury Board Secretariat, the Comptroller General, and departmental Senior Financial Officers has to be made. Accordingly, the Committee recommends:

That Treasury Board Secretariat and the Comptroller General intervene when Senior Financial Officers are excluded from program design and implementation or are experiencing other conflicts with their departments. This intervention could range from the communication of a formal expression of concern to the department in question, to meeting with the parties and acting as a mediator, to an express demand that the Senior Financial Officer be included in the process.

That if intervention fails to produce satisfactory results, the Comptroller General be required to report the matter to Treasury Board Ministers and recommend additional financial controls for the program in question.

Furthermore, in order to strengthen the current relationship generally, the Committee recommends:

That Treasury Board Secretariat provide stronger support to departmental Senior Financial Officers in fulfilling their duties.

That Treasury Board Secretariat clarify and reinforce the current reporting and accountability relationships for financial management and keep the Committee informed of progress in this area.

E. NCARP: A Final Evaluation

Currently there is a program that has replaced NCARP; this program is known as the Atlantic Groundfish Strategy (TAGS). Under this program, more than \$1.6 billion (and \$300 million more for regional economic development) will be spent over the course of the next five years for income support for fishers and fish plant

workers affected by the cod moratorium. Thus it is important that an evaluation of NCARP be conducted and that this evaluation be used to adapt the new program that is now in place. The Committee, therefore, recommends:

That the Department of Fisheries and Oceans tables, this Fall, an evaluation of the NCARP's performance. This evaluation should, among other things, indicate whether the program benefited those it was intended to, changes made to the admissibility criteria, the amounts recovered by the Department and the amounts forgiven in cases of extreme hardship. In addition, the evaluation ought to quantify the results obtained with regard to the restructuring of the cod industry and indicate the cost of fishing licence buybacks.

Pursuant to Standing Order 109, the Committee requests the government to table a comprehensive response to this report.

A copy of the relevant *Minutes of Proceedings and Evidence (Issues Nos. 4, 14 and 15 which includes this Report)* is tabled.

Respectfully submitted,

Richard Bélisle,

Chair

Appendix D

Report on the Audit of the President of the Treasury Board's Report to Parliament:

**Tablings in Parliament for Parent Crown
Corporations: Annual Reports and
Summaries of Corporate Plans and Budgets**

REPORT ON THE AUDIT OF THE PRESIDENT OF THE TREASURY BOARD'S REPORT TO PARLIAMENT:

TABLINGS IN PARLIAMENT FOR PARENT CROWN CORPORATIONS: ANNUAL REPORTS AND SUMMARIES OF CORPORATE PLANS AND BUDGETS

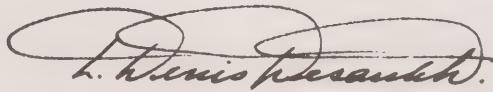
Introduction. The *Financial Administration Act* requires the President of the Treasury Board to lay before each House of Parliament a report concerning the timing of tabling, by appropriate ministers, of annual reports and summaries of corporate plans and budgets of Crown corporations subject to the reporting provisions of Part X of the Act.

The report on these tablings allows Parliament to hold the appropriate ministers (and, ultimately, the Crown corporations) accountable for providing, within the relevant statutory deadlines, the information required under the *Financial Administration Act*. Accordingly, the report is required to indicate the time at, before, or within which the annual reports and the summaries of corporate plans, capital budgets and operating budgets (and amendments to them) were required to be tabled before each House during the reporting period; and the time they were actually tabled. The report on tablings is included in the President of the Treasury Board's annual report to Parliament, *Crown Corporations and Other Corporate Interests of Canada*.

Scope. In my annual Report to the House of Commons, I am required by subsection 152(2) of the *Financial Administration Act* to attest to the accuracy of the information contained in the President of the Treasury Board's report on tablings. Accordingly, I have examined the report for the year ended 31 July 1994, to be tabled not later than 31 December 1994*.

My examination included a review of the systems and procedures used by Treasury Board to monitor the tabling of the summaries and annual reports in each House of Parliament, a verification of the information contained in the report, and such other tests and procedures as I considered necessary in the circumstances.

Conclusion. I have concluded that the report on tablings contains all the required information about the timing of tabling, by the appropriate ministers, of Crown corporations' annual reports and summaries (and amendments to them) of corporate plans, capital budgets and operating budgets, and in my opinion, the information contained in the report is accurate in all significant respects.



L. Denis Desautels, FCA
Auditor General of Canada

OTTAWA, 30 September 1994

* Not tabled at time of going to press

Appendix E

Taking Stock of Special Operating Agencies

A Summary of Conclusions of Joint Public and Private Sector Steering Committee

This report, and the study on which it is based, was commissioned by the Auditor General of Canada and the Secretary of the Treasury Board through an exchange of letters in early 1993.

The study was directed by a Steering Group of public and private sector members. Under their direction, and with the co-operation of SOA heads and departmental officials, a joint project team assembled, organized and analyzed the data set out in Parts 1 and 2 of the report. With input from the joint project team, members of the Steering Group developed the main conclusions and recommendations set out in Part 3 of the report and reflected in the Summary of Conclusions.

The resulting report reflects a consensus view on the main conclusions to be drawn from the experience to date, on the way forward for the SOA and on the measures needed to move forward. These views are provided to the Secretary of Treasury Board and the Auditor General for their use in informing ministers and Parliament respectively.

Mr. L.D. Desautels, FCA
Auditor General of Canada
and
Mr. R. Giroux
Secretary of the Treasury Board and Comptroller General of Canada

Gentlemen,

TAKING STOCK OF SPECIAL OPERATING AGENCIES: SUMMARY OF CONCLUSIONS

1 You asked that we take stock of the Special Operating Agencies initiative. We are pleased to summarize our main conclusions and recommendations.

Introduction

2 Economic and political forces are causing the Government of Canada to change the way it works. Continuing deficits and mounting debt pose hard choices about the services the government should provide, about how to manage the various organizational structures that have been created or inherited, and about how to improve service and do more with less. The Special Operating Agency initiative is a part of this broad agenda for reform.

3 SOAs may be granted certain freedoms from government-wide rules in return for undertaking to achieve specified results. They are located on a continuum that stretches from traditional government departments through Crown corporations to privatized entities. The essential elements of SOAs — increased authority, development of strategic and business plans, responsibility for results, and disclosure of performance — have been recognized for many years in Canadian administrative reform. Although difficult to implement, they represent good management practices that are as applicable to the public service at large as to the organizations selected to be SOAs.

4 On 15 December 1989, the President of the Treasury Board announced that the government was introducing special operating agencies as pilot projects. By the end of 1993, fifteen SOAs had been approved, employing about three percent of public servants. Their activities vary: five provide services primarily to other government departments; two provide specialist services to the departments in which they are situated; and eight serve the public on a limited basis. Also, their manner of operation differs: some are optional — they provide goods or services to the government in competition with other suppliers — while others are mandatory; some depend on parliamentary appropriations while others are self-sustaining; and two have separate employer status, although most do not.

5 The government has learned a great deal from operating these SOAs and from this stocktaking study. A fundamental issue running through the experience that must be addressed is the relationship between SOAs and ministers of the Crown. For practical purposes, the Steering Group has assumed that SOAs will continue to operate within the framework of traditional ministerial accountability. However, the additional freedoms granted SOAs will create tensions in the system. Support by ministers will be essential if SOAs are to work.

Conclusions

6 The Steering Group has concluded that, for certain government activities, SOAs should be able to provide better service at lower cost, and should therefore be continued if Treasury Board ministers, ministers and deputy ministers of departments in which SOAs are situated, and agency heads:

- provide clearer focus and direction for the SOA initiative as a whole;
- build greater acceptance and support for the SOA concept among stakeholders — public servants, unions, suppliers and competitors, the general public and parliamentarians;
- improve the criteria for determining which government activities should be converted into SOAs, and which SOAs, if any, should be moved into an alternative structure;
- set clearer, more concrete performance goals and improvement priorities for SOAs and include them in agency charters with appropriate permanence, establish more clearly the respective responsibilities of SOA heads and deputy ministers under the umbrella of ministers and match these responsibilities with appropriate authority and discretion, and monitor agency performance with respect to the goals and priorities established;
- establish a framework for public reporting using existing departmental accountability reports (Part III of the Estimates) with appropriate safeguards to deal with confidentiality;
- develop and adhere to clear guidelines for SOAs that compete to supply government departments and that compete for markets in the private sector; and
- provide for subsequent stocktaking of the SOA initiative to assess progress and make appropriate adjustments as may be required.

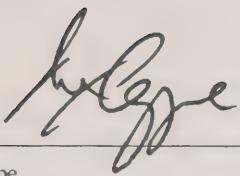
7 Government activities for which SOAs would seem best suited are those whose objectives and outputs can be reasonably measured, that do not require significant ongoing ministerial involvement and, although this is quite subjective, that operate in a relatively stable policy framework. While not a prerequisite, another useful criterion might be revenue dependence — activities that are self-financing on the basis of their outputs.

A Final Word from the Steering Group

8 Hard data to support our conclusions have been difficult to come by and somewhat contradictory (see detailed report), partly because of unclear objectives for individual SOAs, partly because SOAs have not been required to develop the data, and partly because of their limited life span. We recognize that our conclusions represent judgments based on interpretation of available facts, supported by reasoning derived from the experience of other jurisdictions and the private sector.

9 We hope that the results of our work will be useful to Treasury Board ministers and their advisors in deciding the future of special operating agencies.

Respectfully submitted,



M. Cappe
(former Deputy Secretary of Treasury Board)
Deputy Minister, Department of Environment



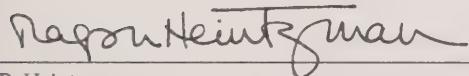
N. Mulder,
Deputy Minister,
Department of Transport



D. Good
Assistant Secretary,
Treasury Board of Canada



V.L. Pearson,
Chief Executive Officer,
Consulting And Audit Canada



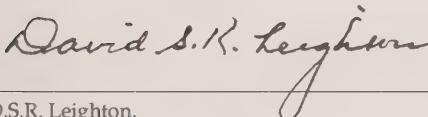
R. Heintzman
Vice Principal Research, Canadian Centre for Management
Development



R. Quail,
Deputy Minister, Public Works and Government Services



H. Romoff,
Consultant, former Vice President, Canadian Pacific



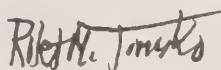
D.S.R. Leighton,
(Ret'd) Director, National Centre for Management Research
and Development



R.C. Thompson,
Assistant Auditor General of Canada
(Chairman)



N. Manchevsky,
Chief Executive Officer,
Canada Communication Group



R. Tomasko
Consultant and author

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents

Volume Chapter

1	Introduction
1	Matters of Special Importance and Interest
2	Follow-up of Recommendations in Previous Reports
3	Other Audit Observations
4	Background on the Audit Process
	Appendices
A.	Auditor General Act
B.	Financial Administration Act – Extracts from Part X
C.	Reports of the Standing Committee on Public Accounts to the House of Commons
D.	Report on the Audit of the President of the Treasury Board's Report to Parliament: Tablings in Parliament for Parent Crown Corporations: Annual Reports and Summaries of Corporate Plans and Budgets
E.	Taking Stock of Special Operating Agencies – A Summary of Conclusions of Joint Public and Private Sector Steering Committee
	Studies
2	5 An Innovative Society and the Role of Government
3	6 Study of Key Federal Social Programs
4	7 Information for Parliament: Departmental Reporting on Sectoral Activities and Follow-up of 1992 Chapter on Departmental Reporting
5	8 Information Technology – Reaping the Benefits and Managing the Risks
	Audits
6	9 Science and Technology – Overall Management of Federal Science and Technology Activities
10	Science and Technology – Management of Departmental Science and Technology Activities
11	Science and Technology – The Management of Scientific Personnel in Federal Research Establishments
32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents (cont'd)

Volume	Chapter	Report Title
7	12	Aspects of Federal Real Property Management
8	13	Federal Management of the Food Safety System
9	14	Agriculture and Agri-Food Canada – Farm Income Protection
10	15	Atomic Energy Control Board – Canada's Nuclear Regulator
11	16	Correctional Services Canada – Custody of Inmates
	17	National Parole Board
	18	Correctional Services Canada – Supervision of Released Offenders
12	19	Environment Canada – Environmental Partners Fund
	20	Environment Canada – Ice Services
13	21	Foreign Affairs and International Trade Canada – Technical Assistance Contributions to Central and Eastern Europe and the Former Soviet Union
	22	Foreign Affairs and International Trade Canada – Financial Management and Control
14	23	Indian and Northern Affairs Canada – Social Assistance
15	24	National Defence – Defence Management Systems
	25	National Defence – Information Technology
	26	National Defence – Infrastructure Reductions
	27	National Defence – Infrastructure Management
16	28	Revenue Canada – Customs Assessment Activities
	29	Revenue Canada – Collecting Income Tax Debts
	30	Revenue Canada – Goods and Services Tax: Audit and Special Investigations
	31	Revenue Canada – Ensuring Fairness of the Income Tax System: Detection of Non-Filers and Special Investigations
	32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development
	33	Department of Finance and Revenue Canada – Tax Assistance for Retirement Savings
17	34	Public Works and Government Services Canada – Management and Operation of Crown-owned Office Buildings

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Report of the
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1994 Report of the Auditor General of Canada to the House of Commons

Volume 2 – Table of Contents

Chapter		Page
5	An Innovative Society and the Role of Government	5–3

Chapter 5

An Innovative Society and the Role of Government

Table of Contents

	Page
Main Points	5-5
Introduction	5-7
Features of an Innovative Society	5-8
Innovation is different from creativity	5-9
Five features of innovation	5-9
Canada Is an Innovative Society in Some Areas	5-10
Paradigm shift	5-10
From “low-tech/low touch” to “high-tech/high-touch”	5-10
Room for Improvement	5-11
Imbalances, Dilemmas, Absurdities	5-11
Genesis of Innovation	5-13
Who Innovates?	5-13
Innovation by individuals	5-13
Innovation by groups and communities	5-14
How Does Innovation Occur?	5-15
Innovation through introducing new practices	5-15
Innovation through improving practices	5-16
Innovation through transforming practices	5-16
Innovation through discontinuing practices	5-17
Suggestions for Government Action	5-19
Promote openness, networking and a community spirit	5-19
Create an environment that is supportive of innovation	5-19
Make laws and regulations that are adaptive and “self-learning”	5-19
Engage in short-term experimentation combined with long-term vision	5-20
Go to great lengths to preserve Canada’s physical environment as the basis for other innovative efforts	5-20
Insist on much more innovation in education	5-20
Emphasize employability rather than employment	5-21
Use the reduction of government programs as an opportunity for innovation	5-21
Take further steps to progress in an entirely different kind of innovation: helping poorer societies raise their quality of life	5-21
Be determined to make Canada “the innovative country”	5-22
Conclusion	5-22
Exhibits	
5.1 Earlier Studies in This Series	5-7
5.2 About This Study	5-8
5.3 Canada Compared with Five Other Countries	5-10
5.4 A Paradigm Shift: Exporting by Satellite	5-11
5.5 High-tech/High-touch Work in a Western Canadian Sawmill	5-12
5.6 A Structural Absurdity from a Workers Compensation Program	5-13



An Innovative Society and the Role of Government

Assistant Auditor General: *Maria Barrados*
Responsible Author: *Otto Brodtrick*

Main Points

5.1 Innovation has become a crucial survival issue. A society that pursues well-being and prosperity for its members can no longer treat it as an option.

5.2 Innovation tends not to arise by itself; it is generated and sustained through the efforts of people: innovation is where the spirit is. It cannot be legislated, or brought about by edict. It comes from individuals and from creative and interactive communities. Like happiness, innovation wilts in a climate of criticism and repression, yet thrives in an environment of encouragement and support.

5.3 Government therefore needs to work hard at creating an environment that is supportive of innovation. Otherwise innovators will either not innovate — they will “play safe” — or they will leave for more encouraging societies.

5.4 In an innovative society, individuals, groups, organizations, government and Parliament recognize that they are partners, rather than opponents, controllers or contenders. The ideas of community, networking, collaboration and common purpose, of playfulness, fun and excitement, but also of healthy competition, openness and accountability need to be guiding principles.

5.5 An important element of innovation is resolving dilemmas, that is, reconciling apparently competing values. Truly innovative societies can, at the same time, meet real needs and control costs, address individual choices and satisfy societal priorities, considering both economics and compassion.

5.6 Canada has the potential to be particularly innovative as a society because of the cultural diversity of its people. If it could continue to establish and maintain the interconnection that is the basis for societal innovation, it might well become known as “Canada, the innovative country”.

Introduction

An innovative society is able to sustain well-being and prosperity for its members in times of rapid change.

5.7 This study discusses features of a more innovative Canadian society, and the possible role of government in such a society. By government we mean the public service, the government of the day, and Parliament.

5.8 Similar to other projects in this series (see Exhibit 5.1), this study explores an important yet difficult topic, one that is not suited to routine auditing. We report the results of our study hoping to generate the kind of discussion and action that will eventually enable this

Office to review innovation in the government as part of its regular audit work.

5.9 To stimulate discussion and action, we present our findings with the aim of strengthening our readers' conviction that innovation is possible, even necessary, in society; that it is a dynamic, ongoing, never-ending process; and that most people can be active partners in an innovative society — both along the lines we outline in this report and, undoubtedly, in new, even more innovative ways.

5.10 We present our findings in four parts. We describe some innovative practices in Canada; we note some of the dilemmas and absurdities in which we engage as a society; we discuss how

People can be active partners in an innovative society.

Exhibit 5.1

Earlier Studies in This Series

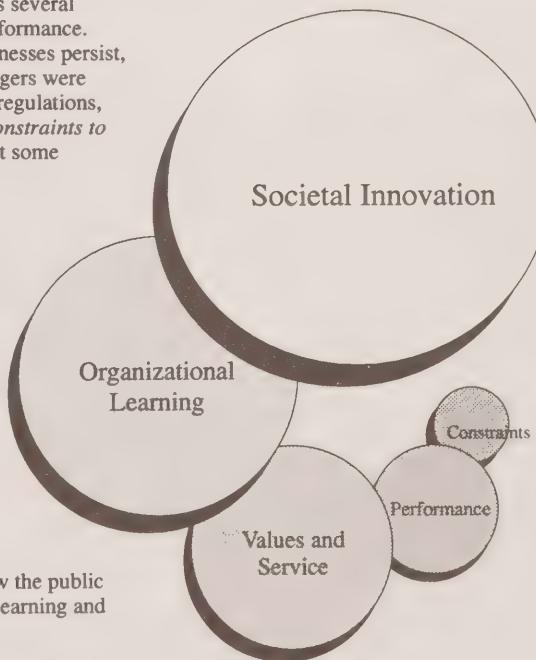
Over the past dozen years, this Office has published in its annual Reports several studies that explore how organizations can improve and sustain their performance. The first study addressed the question, Why do serious managerial weaknesses persist, in spite of conscientious efforts to overcome them? We found that managers were constrained by political priorities, by too many administrative rules and regulations, and by systemic disincentives. We published the study under the title *Constraints to Productive Management*, in 1983. Our Report pointed out, however, that some organizations do work well, in spite of these constraints.

Our next project identified the characteristic attributes of such well-performing organizations. We documented twelve attributes, grouped in four clusters: emphasis on people; participative leadership; innovative work styles; and strong customer orientation. We published that study in 1988 as *Attributes of Well-Performing Organizations*.

While the 1988 study explored the competencies and skills of organizations, it said nothing about the affective side of organizational behaviour. We therefore designed our next project to address the impact of values, attitudes and motivation on organizational performance. We published the results in 1990 as *Values, Service and Performance*.

We published a further study in 1992 under the title *The Learning Organization*. It discussed the need for continuous organizational learning in the face of rapid and accelerating change, and it explored how the public service might create a culture in which one of the dominant elements is learning and innovation.

These studies have had widespread acceptance, both in Canada and abroad. Several countries have replicated some of our work in their own public services.



An innovative society is willing to discuss openly all issues.

innovation is generated; and we suggest a number of specific points on which action can be taken to make ours a more innovative society. The approach we used in conducting this study is outlined in Exhibit 5.2.

Features of an Innovative Society

5.11 To survive and prosper, that is, to achieve and maintain a high standard of living for its members, a society must do four things well. First, it must build and sustain social, legal and economic structures and processes that support innovation, that are competitive while sustaining the natural environment, and that lead to well-being for the greatest number of people.

5.12 Second, it must ensure that its members develop and continually update the knowledge, competencies, abilities and skills that are required to produce innovative products and services.

5.13 Third, it must nourish and support the affective potential of its members, such as commitment to a common purpose, trust, collaboration, enthusiasm, caring and loyalty; this includes defining meaningful roles for those who are outside conventional work structures.

5.14 Fourth, it must build and sustain relationships, within itself and with other societies, that enable it to interact productively, both for its own and for mutual benefit; and it must do so with a long-term view, considering spans of generations.

5.15 Furthermore, an innovative society is willing and able to discuss and examine openly all issues, even controversial matters and “sacred cows”; it retains the suppleness to explore and experiment; and it has the wisdom and persistence to pursue selected options in the quest for desirable results.

Exhibit 5.2

About This Study

Unlike an audit, which is done in a verification mode and based on established audit criteria, a study can use an exploration mode. In this study we explore a difficult yet important topic, with a view to *developing* criteria that can contribute to an audit of the topic at a future date.

Earlier studies in this series were conducted mainly in the public service. Much of the work was done through interviews and other personal contacts in participating government organizations, and senior officials became aware of our main study findings as they evolved. This study has a different topic. Since part of its theme is society, we had to do much of our work outside the public service.

This study's conclusions are based largely on our own field work, rather than on writings by others. We conducted the normal literature review to learn about research already done in this area.

We interviewed about sixty knowledgeable people at different levels and in various parts of Canada. In addition, we met with about forty senior people in other countries, including Australia, France, Germany, Japan, the Netherlands, Singapore, Sweden and the United States. The interviews and meetings were often combined with observations, field visits, comparisons and further correspondence. Most of the people we saw work in the private sector, but some are government officials.

Occasionally, prominent interviewees expressed conflicting points of view about findings that our analysis and synthesis generated during the study. Because of that, we validated our conclusions toward the end of the study by testing them again with practitioners and researchers.

The study team worked with a group of five advisors, one on methodology from Cambridge University in the United Kingdom, the other four from Canada: a chief corporate executive in the knowledge industry; a motivational and rehabilitation psychologist; President of a health centre; a Professor of Law and North-South Relations, former President of an international development agency; and an economic renewal consultant, now Director of an international association of research institutes.

5.16 Such a society anticipates the future, understands the concept of opportunity costs and makes choices wisely: with a given amount of resources, should it build a hospital, or a school, or a bridge? It is able to envision a desired future, examine its possibilities, select preferred results, and pursue its choices vigorously.

5.17 Such a society fosters an environment that is conducive to innovative behaviour. That is, it fosters a climate of open discussion and challenge, of confidence and of responsible risk-taking. It seeks to reduce the fear of failure, sees error as an important source of learning and recognizes the benefits of co-operation, but also of competition. It promotes networking and interaction, and it resolves paradoxes and dilemmas productively.

5.18 The innovativeness of such a society is based, in large part, on a coherent vision that leads to cohesion. That is to say, an innovative society is more than a group of people who live in the same country. Its societal innovations are a function of the quality and constructiveness of relationships within its communities, based on an overall common vision. In Canada, for instance, the universal health care system was an outcome of such a coherent societal vision. It was a major innovation and is still viewed by many as one of the finest in the world.

Innovation is different from creativity

5.19 Innovation is different from creativity. Innovation is the application of creative new ideas, the implementation of inventions. In contrast, creativity is the generating and articulating of new ideas. It follows that people can be creative without being innovative — for instance,

if they have ideas, make inventions, but never implement them. By implementing them we mean winning acceptance for them, applying them, putting them to use, “exploiting” them, turning them into products and services that other people will pay for and use.

5.20 Similarly, people can be innovative without being creative. For example, if they apply or implement inventions that were made elsewhere then they are innovative, even though the inventions, the creative ideas, were not their own. The Sony Walkman, for example, started as an idea, an invention. Once the invention was implemented, it became an innovation.

Five features of innovation

5.21 Our analysis resulted in a set of five features of innovation. First, innovations and dilemmas do not occur by themselves; they are generated and sustained through the efforts of people. Second, during times of rapid change, innovations designed for static situations can turn into absurdities, creating dilemmas, mismatches or clashing values. Third, it takes hard thinking and hard work to generate and foster societal innovations, to disseminate them and to sustain them. Fourth, innovations cannot be generated through edict; they result from the creativity, commitment and persistence of people and communities. Finally, certain behaviors foster innovation; such behaviors can be identified, learned and applied.

Innovation is different from creativity.

5.22 These features are based on two major premises: that innovation is a crucial survival skill for society, especially during times of rapid change; and that the skill to innovate resides in people. A society and its institutions must therefore do everything they can to develop, attract, support and retain innovative people.

Canada Is an Innovative Society in Some Areas

5.23 On a comparative basis, an innovative society is one that is doing at least as well as others — and better than some — at applying new ideas in a changing and challenging environment. Such a society is innovative not only in economic terms but also in its social, cultural, environmental and political aspects, including the ability to live and work together constructively.

5.24 When we compare Canada with other countries we find that, in many aspects, it is already an innovative society. The United Nations Human Development Index lists the quality of life in Canada as one of the highest in the world. Life expectancy in Canada matches that of Sweden and Switzerland and is higher than in the United States and Germany. In adult literacy, Canada is equal to the most advanced countries. Gross domestic product per capita in Canada is lower than GDP in the United States and Switzerland, but higher than in Japan, Germany and Sweden. We are — innovatively speaking — “neighbours” of Switzerland, Sweden,

Germany, Japan and the United States, as Exhibit 5.3 shows.

Paradigm shift

5.25 Traditionally, and particularly in the decades since the Second World War, Canada has become innovative in extracting its natural resources because of high demand for raw materials. Countries without such resources have learned early on to be innovative in different ways. They import raw materials, add value to them and export finished products. What has always been necessary for them may, sooner or later, also be desirable for Canada. This would require a paradigm shift, as Exhibit 5.4 illustrates.

From “low-tech/low touch” to “high-tech/high-touch”

5.26 Earlier this century, manufacturers replaced many low-skill jobs with simple machines to cut costs and improve efficiency, an example of low technology replacing low-skill labour, or “low-tech/low-touch”. Over time, further innovation required that the low-tech machines be replaced by sophisticated robots, resulting in a system of “high-tech/high-touch”. Now, many innovative companies bring back highly skilled

Exhibit 5.3

Canada Compared with Five Other Countries

	Canada	US	Japan	Germany	Sweden	Switzerland
UN Human Dev. Index	98	98	98	96	98	98
Life expectancy (in years, for women)	81	80	82	79	81	81
Adult literacy (%)	99	99	99	99	99	99
GDP per capita (US = 100)	90	100	82	85	79	97

Source: World in Figures, The Economist, June 1993.

workers whom they also support with high technology, a combination of "high-tech/high-touch". This is an effective combination for production runs that produce high-value products.

5.27 These highly skilled people turn out to be a rich source of further innovation within the companies. Also, their demanding jobs challenge them continually to improve their competence, which makes them even more employable, even though any one company may not be able to guarantee them lifetime employment.

5.28 Some sectors of Canadian industry are using this innovative "high-tech/high-touch" approach for producing and globally marketing products that fill a niche in the market. They produce differentiated, value-added specialty products for which international customers are willing to pay premium prices.

5.29 They do this by using the high-tech/high-touch approach in conjunction with collaborative interaction and networking. In parallel with the highly skilled craftspeople, marketing specialists are in regular contact with overseas customers, either in person through travel, or by fax, telephone or electronic mail. Through this innovative combination of production, networking and interacting, some Canadian companies satisfy customers in the most demanding of international markets. Exhibit 5.5 gives an example of one such company.

Room for Improvement

5.30 Although Canada is innovative in many ways, it could improve significantly in a number of areas. For instance, Canada's unemployment rate is extremely high compared to other developed

countries. The teenage suicide rate in Canada is one of the highest in the world. Per capita, Canada keeps more people in prison than any of the other Western industrialized democracies except the United States.

5.31 In these and other areas, Canada could do much more, both in removing limits to innovation and in fostering it. In many cases, society unwittingly creates innovative structures that, over time, lose their innovativeness and become obsolete, even detrimental. They turn into dilemmas or systems out of balance.

Imbalances, Dilemmas, Absurdities

5.32 The health care system might serve to illustrate. Such a system serves personal health in making available to individuals the knowledge and skills of medical services when illness strikes. In parallel, the system serves public health purposes when it contributes to reducing the number of people who need medical

Highly skilled people turn out to be a rich source of innovation.

Exhibit 5.4

A Paradigm Shift: Exporting by Satellite

We interviewed insightful people in different countries for this study, one of them the Vice-President of a large Japanese corporation. It was formerly owned by government, was privatized some half-dozen years ago and has since become very innovative and successful.

At the end of the interview, we felt envious about this success and asked, Do you have some suggestions we can take back to Canada? "Give me an example of what you mean," he said. We described how we go to Canada's west coast, cut down one of those magnificent trees, float it over to Japan and obtain a certain price. Japan will use the tree to make a piano and sell that back to us for several times the cost of the tree.

At that, our interview partner's face broadened into a wide grin and he said, "You have just articulated the industrial strategy of Japan: Import by boat and export by airplane!"

We in Canada might raise our sights even higher and resolve to "export by satellite" — knowledge, information, ideas, insights, intelligence and innovation. In addition to mining our mines, we should mine our minds.

Innovative solutions should not have to mean losing those characteristics that society values highly.

attention in the first place, that is, when it helps to prevent illness.

5.33 Polls continue to show that Canada's health care system is a major source of satisfaction and national pride. The system has generally been successful in providing free access to people as they need it and in eliminating the financial risks of illness to individuals. The security it provides is so precious that people resist threats to its integrity. On a personal level, it is a sensible system.

5.34 Yet, at a societal level, the system is in difficulty. Health care costs are rising, with some observers suggesting that many medical care interventions are inappropriate. The dilemma is that structural arrangements and incentives in the system are such that doctors and patients tend to err on the side of more treatment rather than less. Yet the overall level of public "illness" shows little decline. The system seems imbalanced in favour of being sensible for personal health while being less effective at serving the purposes of public health.

5.35 The health care system concentrates most of its attention on people after illness has struck, whereas the real potential for improving public health may lie in eliminating the underlying causes of illness — which range from social dislocation and unemployment to an unhealthy environment. It has long been known that social, environmental and behavioural factors are significant determinants of health. In general, a high level of public health and longevity is often due not so much to victories of health care as to victories of hygiene and sensible living.

5.36 Truly innovative solutions to our health care problems should not have to mean losing those characteristics of the system that society values so highly. Structures and systems must be designed that can, at the same time, meet real needs and control costs, that can both nurture health and treat illness, that consider both economics and compassion. This is an important element of innovation — that it can find ways to resolve dilemmas, to reconcile apparently competing values in a balanced way.

Exhibit 5.5

High-tech/High-touch Work in a Western Canadian Sawmill

This sawmill has, over the past few years, upgraded from traditional to high-tech/high-touch work. A significant part of this upgrading was the installation of an energy-efficient drying kiln, which allows the mill to dry wood on site, instead of shipping it to other sites for drying. Dry wood is critical for almost all of the mill's products.

The manager frequently visits international customers to determine their exact needs and to obtain the very precise specifications for specialty building products. The mill then produces customized window and door frames and secures prices considerably higher than those paid for standard products. Out of an annual output of 400,000 cubic metres of wood products, the mill exports 370,000 to Asia, Europe and the United States.

High-tech/high-touch manufacturing of wood products is adding an estimated 100 to 125 skilled jobs at the sawmill, which has a significant positive effect throughout the local economy.

5.37 Other societal structures that take on the form of dilemmas or imbalances are elaborate systems in which the bulk of available energy is spent at the tail end of a process, on a cure, while the front end, prevention, is impoverished. Corrections systems are an example. Societies that concentrate on enforcement and correction to the exclusion of voluntary compliance and prevention find that they are facing a never-ending escalation in the cost of doing so. The United States keeps a higher proportion of its citizens in prisons and other corrections facilities than does any of the other Western industrialized democracies. Yet the occurrence of violence and crime in that society is

increasing rather than declining, with attendant escalating costs.

5.38 We refer to absurdities when societal structures seem to have gone beyond the stage of mere imbalances and dilemmas. They are typically so self-evident that discussion is unnecessary. Exhibit 5.6 gives an example of an absurdity, from a Workers Compensation program.

Genesis of Innovation

Who Innovates?

Innovation by individuals

5.39 Many innovations are synonymous with the individuals who generated them: "The real McCoy," Einstein, Bell, Bombardier, Salk, Bethune and Banting. Knowing their names is knowing their innovative contributions—in lubrication technology, relativity theory, telephones, snowmobiles and medical advances. What processes do people follow when they innovate?

5.40 In some cases, individuals generate innovation by design, the result of efforts to deal with a challenge or opportunity. Several stages are involved. Architects who need to create innovative designs for new public edifices will study the activities that will go on in the buildings. For a court building, for example, they will immerse themselves in the topics of law, of legislation, of justice and of history: what sort of structure would satisfy the purpose? They will also explore the site on which the building will stand: what kind of structure will fit best here? After that, they might go to a studio or a secluded place for a period to create clay models of different structures they envision. Finally, they will choose one model and develop it for further design.

The common thread is immersion in the work.

5.41 In other cases, individuals generate innovation almost by chance, without a fixed purpose, the result of reflection and discovery at work. We see this in people who have become expert in their vocation: professionals, craftsmen and artists. The process involves immersion in work practices, becoming conscious of patterns and habits, reflecting on them and applying them in different ways. A craftsman discovers a better way of doing a task, others emulate it, and an accepted practice changes, becomes more innovative. Again, immersion in the work is the key element in generating innovation.

5.42 Part of this process seems to be a sense of playfulness and curiosity. A worker may bring to his work a childlike

Exhibit 5.6

A Structural Absurdity from a Workers Compensation Program

This illustration comes from a vocational rehabilitation consultant who works in one of Canada's workers compensation programs:

A worker is making about \$45,000 per year. He is married and has two small children. His wife is looking after the children at home and brings in two or three thousand dollars per year doing occasional jobs.

The man gets injured at work, and the Workers Compensation Board now pays him standard benefits, tax-free. His mortgage and his automobile payments are insured and, since he can't work, those payments are made for him. He applies for a Canada Pension Plan disability allowance and receives it. Since he is now at home, he looks after the children, and his wife is able to take on a job outside the house. This couple is earning far more now than when the husband was working.

The man is taking rehabilitation training and gradually regains his strength and ability. The day arrives when I have good news for him: 'You are ready to work again, and I have a job waiting for you.'

At this point, they both, husband and wife, want to throw me out of their house. There is no way he wants to go back to work, because it would mean losing a substantial part of the family income.

It is an insane system we have set up as a society. We are continually confronted with structures that remove incentives for such people to go back to work, even though they are qualified and work is available. And that's an absurdity.

joy in playing and, by doing things in unconventional ways, may discover innovative approaches to producing intended results. Playfulness at work might not necessarily change the result of the work, but it can result in a more innovative process for achieving that result.

5.43 In still other cases, individuals generate innovation by deliberately asking “Why?” One of our interviewees put it this way: “You never accept things the way they are. You always ask, why? Why this way? Why now? Why here? Why me? And the answers to these hundreds of whys become the generator for more innovative approaches.” Once again, innovation is predicated on immersion in the work process and, in this case, on challenging traditional ways.

5.44 We reach several conclusions from this. Individuals innovate for a purpose, based on a challenge before them; they create “something from nothing” by visualizing and mentally immersing themselves in a potential new creation. Individuals also innovate through reflection and discovery at work, almost inadvertently, without a specific goal, simply by attempting to do their work in new ways. And individuals innovate by consciously questioning conventionally accepted practices and work habits. This questioning leads to the design of more innovative practices.

5.45 In summary, a common quality among individuals who generate innovation is intense immersion in their work. It is this immersion that leads to the understanding, discovery and experimentation on which innovation is based. Without this passionate engrossment — but also playfulness — in work, innovation is unlikely to occur. In other words, individuals who “work to rule”, or who work superficially,

complacently and without commitment, are unlikely to generate innovation.

Innovation by groups and communities

5.46 As we have noted, individuals generate innovation through reflection, and through immersion in their work. Groups, communities and societies generate innovation through communication and interaction.

5.47 A large part of community interaction is governed by formal structures: laws, rules of behaviour, etiquette, protocol, and prescribed channels of communication. However, part of community interaction is also based on behaviour for which rules are not formally documented. This includes norms, expectations, traditions and conventions. Only if people are part of these community traditions will they follow them.

5.48 An interconnected community typically has many common activities, including sports associations, debating groups, recreational events, music bands, choirs, hobby clubs and well-supported civic and political organizations. This interconnectedness generates social cohesion and common vision. It also fosters innovation, which in turn leads to well-being and prosperity. In contrast, a community that is merely a place of residence for a group of individuals who are otherwise not connected is unlikely to generate significant social innovation.

5.49 In many societies, including Canada, the current trend is toward aggregates of individuals who live in the same place but have no other common bonds. The disappearance of large families, the decline of religion as a source of common belief, high mobility and the need for both parents to work contributes to this trend. As a result, the community at work is becoming, for many

Questioning leads to the design of more innovative practices.

people, a substitute for the community at home.

5.50 Progressive workplaces recognize this trend and take advantage of it in order to maximize the innovative potential of the work community. For example, analysts design procedures that workers are asked to follow. Workers then, over time, collectively turn a designed procedure into an evolved practice that is superior to the procedure: an innovative process has taken place through communication and interaction in the worker community. Management is unable to design the superior practice in the first place; it also cannot understand the innovative process well enough to design it. Therefore, it encourages the process by creating the conditions that foster it: a working climate in which learning is rewarded, experimentation is permitted, risk-taking is encouraged and errors are used for further learning.

5.51 A society might apply this lesson by setting out procedures for a “maturing period” only, during which suggestions for improvements are collected and then incorporated into a more permanent design.

5.52 Innovative groups and communities, then, deliberately create environments in which extensive communication, interaction and experimentation occur, because that in turn tends to generate societal innovation.

How Does Innovation Occur?

5.53 Innovation occurs in various ways, each based on distinct circumstances and practices. In this section, we detail some of these ways. One of them is when entirely new things enter a society: concepts or practices that didn’t exist before. Another is through rationalizing and improving existing

things, for example, making a practice much more efficient or useful. Still another way innovation occurs is through reorganizing and transforming societal practices, as with a radical change in traditional approaches through a paradigm shift. Finally, innovation occurs through the discontinuing of practices that once were seen as being useful, but that have become obsolete, invalid or even harmful.

Innovation through introducing new practices

5.54 One way innovation occurs is through the introduction or development of entirely new concepts or practices. The Gothic cathedral is such an example. After the first ones were constructed in the twelfth and thirteenth centuries, the concept became standard for churches throughout Europe for several hundred years. The approach originated with only a few architects, but it was soon emulated by most other builders.

Innovation occurs through discontinuing practices that have become obsolete.

5.55 Another example is the introduction of universal health care in Canada. A few visionaries in Saskatchewan pioneered the principle, and in the 1960s all provinces and the federal government agreed to implement it nation-wide. The system has been widely hailed as one of the most innovative in existence; even the United States has looked to the Canadian system as a possible model to follow. It is true that governments are facing a growing challenge in financing the expenses of the system, but that doesn’t detract from the innovative concept.

5.56 In 1921, Banting and Best, two Canadian scientists, discovered insulin, for which Banting was later awarded the Nobel Prize because of its importance in the treatment of diabetes. Although insulin was discovered in Canada, it was developed for marketing internationally in Denmark and the United States. This is

Time itself seems to have become a tool of innovation.

an example of an innovation, then, in which the invention was made in one society and developed for implementation in another.

5.57 What can we conclude? The people who make an invention are rarely the ones who control the resources for implementing it. Also, inventors usually do not possess the competencies needed to develop the invention for wider acceptance and commercial use. Furthermore, innovations are rarely developed in all their aspects by one person. In most cases, they are developed in stages, through a process of amplification, over considerable time, using new patterns of unconnected ideas and a variety of skills residing in different people, some of whom may improve on something long after it was originally conceived.

5.58 Fostering this kind of innovation requires interconnection and collaboration among different people in society. We need creative people who are playful, yet who passionately believe in their inventions; we need people who have or control resources and are willing to support further development; and we need people who have the skills to move inventions to the point of general acceptance and use. In summary, a society is likely to be innovative only to the extent that it possesses interconnection, mutual trust and respect, cohesion and common vision.

Innovation through improving practices

5.59 Introducing new things into a society is one kind of innovation; improving on existing things is another. It means taking a design or a practice and expanding its value, usefulness and appeal. After the Gothic cathedral was introduced, successive generations of artisans enhanced it over a period of

centuries. They refined the design, added spectacular adornments and included religious artwork.

5.60 A different kind of effort is under way now to improve the efficiency of the Canadian health care system, because of escalating costs. The U.S. and Canadian systems are the most costly in the world, on a per capita basis, yet people in countries like France, Switzerland and Japan live as long as North Americans. Obviously, there is room for innovative improvement.

5.61 A remarkable example of innovation by improving something is the advancement in the speed of computing and in the storage of electronic data. Also remarkable is the rapidity with which that innovation is progressing. Improvements in the Gothic cathedral took place over centuries; in the health care system over decades; in computing over a few years. Time itself seems to have become a tool of innovation.

Innovation through transforming practices

5.62 Still another way innovation occurs is through transforming and reorganizing practices, based on a rethinking of traditional approaches. Societies throughout history have had innovative insights that helped them progress, often over long periods of time. Books, for example, have changed little since Johannes Gutenberg printed the first Bible five hundred years ago, indicating a particularly apt design. Generally, though, advantages of ideas are eventually exhausted, either through the realization that old approaches no longer fit or because of newly available knowledge and technology. If a society is innovative, this leads to a paradigm shift, to the transformation and reorganizing of practices.

5.63 An example is traditional tax collection as practised in some countries. The tax administration agency is given resources in return for the promise of extracting more money from taxpayers. For every additional unit of resource, the agency undertakes to obtain a certain amount of tax, based on the assumption that some taxpayers cheat when they declare their income. The assumption is based on bad experiences with some taxpayers who do, in fact, cheat.

5.64 However, an approach of relying only on forced compliance is not likely to solve the problem, because taxpayers will become more innovative in evasion and avoidance.

5.65 Regardless of whether assumptions are true, they influence behavior. Tax collectors will seek to become more innovative at enforcing compliance, taxpayers more innovative at avoiding payment. The system becomes the captive of a vicious circle.

5.66 Modern tax administrations take a different route to innovation. They try hard to find out how well the practice of self-assessment and voluntary compliance is working. Are taxpayers generally truthful or deceitful? Why are some people reluctant to comply? What are the trends of compliance? If the system's results are getting better, they leave it alone. If they are getting worse, the tax administration strengthens it to encourage greater voluntary compliance, combined with selective enforcement. They create a "virtuous circle" instead of a "vicious circle".

5.67 One lesson to learn from this is the need to avoid being captured in vicious circles, and the need to break out of them if captured. On the other hand, it is important to be innovative at creating circles that are virtuous. Self-reinforcing

circles have a powerful dynamic because they grow stronger without needing care and feeding. Learning to create and use them is one of the most innovative tools a society can employ in its pursuit of well-being and prosperity.

5.68 A second lesson to learn is the importance of observing trends. Taking a snapshot of a situation gives an accurate picture, it captures current data. Observing a trend, however, indicates whether a situation is improving or deteriorating. For example, Canada currently spends about 10 percent of Gross Domestic Product on its health care system. Twenty years ago, it spent about 7 percent. Observing the trend in a process is often more useful than knowing the particulars of a current situation.

5.69 A note of caution is indicated here. No system and no individual seem to be able to generate innovative results forever. Sooner or later, we find, the flow of benefits dwindles, and it is then time to shift paradigms and undergo a transformation. That is a third lesson. Just as numerous historic bubbles have burst over time — including the Tulip Bulb bubble of the 1630s, the South Sea bubble of the 1720s and the Stock Market bubble of the 1920s — it is likely that even innovative self-reinforcing circles will "burst" over time, particularly as societies change ever more rapidly.

Innovation through discontinuing practices

5.70 It is natural in an innovative society for new things or practices to enter; the Gothic cathedral, for example, represented an entirely new idea when it entered society. Our analysis indicates that it is just as natural, in an innovative society, for other practices to exit.

5.71 During the Second World War, the use of DDT as an insecticide became

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**Abolishing
organizations can be
an act of innovation.**

widespread in the agrarian world. Because it destroyed leaf-eating insects without affecting the growth of plants, the chemical helped raise food production. Partly due to this success, the application of DDT became virtually universal for controlling insects, and even for purposes of convenience such as spraying grassy areas, hedges and ponds to destroy mosquitoes that were bothering people who wanted to enjoy warm summer evenings outside.

5.72 In the early seventies, after a quarter century of use, society realized that DDT adversely affects the health of not only insects but also other animals and human beings. It harms all life forms with which it comes in contact. Since learning that, society has discontinued the use of DDT. We note that the usefulness of DDT in protecting plants from insects remains undiminished. Yet its unintended side effects are so grave that governments have banned its use — a form of innovation through discontinuing a practice that became harmful.

5.73 There are other examples of innovation through the discontinuing of obsolete, invalid or harmful practices: stopping the use of mercury by hat-makers, thereby preventing people from becoming “mad hatters” due to mercury attacking the brain; stopping the practice of punishing children for writing with their left hand; and discontinuing leeching, the formerly common practice of attaching bloodsuckers to the human body for medical reasons.

5.74 One of the more dramatic acts of societal innovation through creative destruction is the abolishing of organizations. The rationale for this type of innovation is that even well-designed systems will deteriorate over time if they don’t “learn,” that is, if they don’t adapt to changes in their environment. This

happens to organizations that no longer cope well in a changing environment, that need unjustifiable subsidies to continue operating. They first become obsolete, then invalid and ultimately a drain on society’s resources. This process goes on regularly in some parts of society, particularly in industry. We see a steady flow of organizations that go out of business, are taken over by new management, merge with others or go bankrupt.

5.75 In sectors that depend for survival on obtaining income direct from customers in exchange for products and services, this process of elimination and renewal occurs naturally. If customers stop buying, income stops. In sectors such as education, public services and health care, where funding does not come direct from customers but from third-party funding bodies, the process of “creative destruction” is more laborious. Here, it requires a much more deliberate effort for society to be innovative.

5.76 The main lesson from these examples is the realization that the exit of organizations is normal and that the elimination of established practices can be an important act of innovation. Another lesson is the recognition that even well-designed rules and systems will deteriorate over time if they are too rigid, if they don’t change with a changing environment. An innovative society will attempt to develop “learning regulations” and “learning systems”. Part of such an approach is to have policy makers prescribe only general directions, ask field people to be responsible for detailed implementation, and maintain effective support systems that include capabilities for rapid feedback and communications.

5.77 A further lesson is that even innovative solutions may have to be discarded after a while because of serious

unforeseen side effects. This implies that solutions should be seen as “experimental” because potential errors may be embedded in many of them.

Suggestions for Government Action

5.78 Being innovative is no longer an option for a society that pursues well-being and prosperity for its members. Innovation has become a crucial survival issue. At one time, the power and affluence of a society were based largely on the possession of land and natural resources, and on their exploitation. Natural resources, and the environment itself, are still important assets that need to be innovatively developed and husbanded. Increasingly, this is done by enlarging the knowledge component of activities. At the same time, the success of advanced societies is determined more and more by knowledge itself, and by its exploitation. Many industrial societies “import by boat and export by airplane.” They add value. Further-advanced societies will also “export by satellite.” They will export information, knowledge, intelligence and innovation. The lesson for Canada is clear: in addition to mining its mines, it will need to mine its minds.

5.79 Innovation tends not to arise by itself; it is generated and sustained through the efforts of people: innovation is where the spirit is. It cannot be legislated, or brought about by edict. It comes from individuals and from creative and interactive communities. Like happiness, innovation wilts in a climate of criticism and repression, yet thrives in an environment of encouragement and support. Society as a whole, and Parliament and government in particular, would do well to work hard at fostering

such an innovation-friendly environment. We offer the following points for consideration by government to help Canada become a more innovative society.

Promote openness, networking and a community spirit

5.80 Parliament might foster the principle that individuals, groups, organizations, government and Parliament itself represent partners in society, rather than opponents, controllers or contenders. The idea of community, networking, collaboration and common purpose, of playfulness, fun and excitement, but also of healthy competition, openness and accountability should be our guiding principles. We need to learn that we are all in this together, that we either will all win or will all lose, and that we should accept, encourage and support each other, rather than foster a culture of criticism and controversy.

Being innovative is no longer an option.

Create an environment that is supportive of innovation

5.81 The reliability and predictability of government actions is crucial for innovation, because innovation itself is largely explorative, ambiguous and tentative. Government therefore needs to work hard at creating an environment that is predictable, and supportive of innovation. Otherwise innovators will either not innovate — they will “play safe” — or they will leave for more supportive and encouraging societies.

Make laws and regulations that are adaptive and “self-learning”

5.82 In proposing laws and regulations, government needs to be ever mindful that static rules will quickly become obsolete in today’s age of rapid change. Many of society’s current dilemmas are due to rules, structures and institutions that were designed during a

Government must be innovative in its own practices.

We need to live and work in such a way that we preserve the quality of Canada's physical environment.

time of much greater stability and affluence. Ideally, regulations and structures should be supported by systems and processes that are “self-learning”. They should adapt to changing circumstances, yet continue to sustain the principles on which they are based. If government were to do this, it could spend less of its energy on managing crises; it could devote more time to avoiding their occurrence.

Engage in short-term experimentation combined with long-term vision

5.83 Today's society is faced with rapid change and unforeseen challenges. At the same time, society faces general trends that can be measured only in decades. Therefore, in moving the country ahead, the government needs to follow a two-pronged strategy: engage in short-term experimentation and exploration to find innovative solutions to pressing current problems and, at the same time, look at root causes, trends and future consequences from a long-term point of view. This two-fold strategy would be pursued under the umbrella of an articulated aim for Canadian society. Such an aim might take the form of envisioning Canada's economic prosperity and social well-being in terms of that of a half dozen other advanced societies, plus the intent to have Canada become “number one” in two or three specific areas.

5.84 The success of such a two-pronged strategy is predicated on having the wisdom to know when to use short-term experimentation and when to use long-term measures to obtain best results for society. In fostering and sustaining such an innovative society, the government must be innovative in its own practices. It must not only preach but also practice innovativeness.

Go to great lengths to preserve Canada's physical environment as the basis for other innovative efforts

5.85 Canada occupies one of the largest and most magnificent physical environments of any country on the planet, and as a society we have become prosperous by taking advantage of our abundant natural resources. For a long time, we acted on the tacit assumption that environment and resources were “limitless,” that we could take from the storehouse of nature without exhausting it. We also acted on the assumption that we could return society's waste to nature without contaminating it. It was unimaginable to us that this would create hardships for nature, let alone for ourselves.

5.86 We now realize that environmental exploitation and contamination lead to degradation — of nature, quality of life and health. Nevertheless, temptations to degrade the natural environment persist, even though economic activities are increasingly knowledge-based and service-oriented. As a basis for innovating and progressing in other areas, we need to live and work in such a way that we preserve the quality of Canada's physical environment.

Insist on much more innovation in education

5.87 Innovation arises from the creativity and commitment of people who have learned to innovatively make a difference and produce results rather than memorize texts and pass examinations. Much of our education system is based on teaching content. While teaching content and skills is crucial, teaching the ability to acquire them is even more important in a rapidly changing world. Canada's spending on education is comparatively high. Yet the level of spending is not

matched by a comparative level of scholastic achievement.

Emphasize employability rather than employment

5.88 The traditional relationship between employer and employee emphasized permanence and continuity of employment. Job security in exchange for loyalty and commitment were highly regarded values. Today's work environment of rapid change, innovation, downsizing and frequent reassessments requires a more flexible arrangement. The skills that allow an individual or an organization — indeed, a society — to stay innovative are rapidly changing and need to be updated continuously.

5.89 During the foreseeable future, governments likely will face continuing reductions. They could use this as an opportunity to become very innovative, by emphasizing employability rather than employment. Their employees would be eager to stay, because they would learn more, but able to leave, because they could market their skills elsewhere; their earning power would remain high. That way, the present traumatic experience of separation would be replaced by the more acceptable experience of changing jobs, or even status: Can't find an employer? Then look for a customer!

Use the reduction of government programs as an opportunity for innovation

5.90 Financial pressures are forcing governments to downsize their programs radically. Some attempts at this have looked like the work of obsessed butchers: hacking, slashing and chopping away at the problem until it has been reduced to size. The result has been lower cost, but also lower service. And in the process, some capacities have been reduced, even

disabled for years to come. This is a bizarre outcome if we consider that the aim should be to maintain essential functions while significantly reducing their costs. Radical downsizing could be seen as the opportunity to innovate, to harmonize structures and processes among different levels of government, and between government and business.

5.91 Another opportunity for innovation on the way to less costly government, as it reduces its size, would be to develop a smaller, but much more flexible and competent work force. In a rapidly evolving society such as Canada's, both the tasks and the way tasks are done will change during the working career of individuals. This calls for arrangements that emphasize continuous learning, learning that is largely interwoven with work itself to ensure high levels of competence. It also calls for efforts that emphasize commitment and the right values.

Take further steps to progress in an entirely different kind of innovation: helping poorer societies raise their quality of life

5.92 The purpose of innovation is to enable a society to maintain or improve its standard of living through being able to compete with other societies. In practice, this means producing innovative products and services that other countries then will buy instead of making such products themselves or buying them elsewhere.

5.93 This objective is traditionally met by adopting a strategy of trying hard to sell ever more sophisticated products in the already saturated markets of the rich, that is, the Western industrialized nations. This means largely ignoring the countries in which billions of people are living in conditions of poverty.

Can't find an employer? Then look for a customer!

Knowledge and innovativeness reside in people and their practices.

Canada might become known as “the innovative country”.

5.94 Canada might think of an entirely different kind of innovation. Besides trying to make ever more refined products for sophisticated — and saturated — markets, we might also become innovative leaders in producing products, services, knowledge and processes that will help raise the quality of life of poorer societies. The lessons learned from this could also benefit poorer populations within Canada itself.

Be determined to make Canada “the innovative country”

5.95 Knowledge and innovativeness reside in people and their practices. For a modern society to prosper, it must educate, attract and keep highly qualified knowledge workers who are committed to making a difference. It must carefully assess how many and what kinds of people it gains (immigration), and how many and what kinds it loses (emigration). Government must act on the realization that today’s world is open, that there are no more Berlin Walls, that competent and motivated people will leave if they find that their efforts at building rewarding lives are frustrated by government, pressure groups or self-righteous cliques.

5.96 Canadian governments and their public service might aim to become world leaders in their practices — to the point where they can package and export their knowledge of governance. Canada might become known as “the innovative country”. A focus on exporting our knowledge will increase our orientation toward achievement, and success in that

area will reflect back on us, encouraging us to become even better at it.

5.97 In all this, innovation should not be seen as a competitive zero-sum game. It not only means implementing and exploiting home-grown ideas and inventions; it also means learning from others and implementing creative ideas and practices generated in other countries. It even means encouraging innovation elsewhere, emulating it and being willing to likewise offer our successful innovations to others. In the spirit of a global community, interaction in innovation will help raise the quality of life in all societies.

Conclusion

5.98 If all people in a society had exactly the same abilities, skills, outlooks and preferences, everyone would act and think the same way and little would occur that might be considered innovative. However, human beings are all distinct from each other. Each of us is genetically unique and the variety and richness of the intellectual, emotional and spiritual tapestry is infinite.

5.99 Canada is particularly blessed because it has, in addition, an astounding variety of cultural diversity due to the wide-ranging backgrounds of its people. Canada thus has the potential to be particularly innovative as a society. If we could continue to establish and maintain among us the interconnection that is the basis for societal innovation, we might well become known as “Canada, the innovative country”.

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents

Volume Chapter

1	Introduction
1	Matters of Special Importance and Interest
2	Follow-up of Recommendations in Previous Reports
3	Other Audit Observations
4	Background on the Audit Process
	Appendices
A.	Auditor General Act
B.	Financial Administration Act – Extracts from Part X
C.	Reports of the Standing Committee on Public Accounts to the House of Commons
D.	Report on the Audit of the President of the Treasury Board's Report to Parliament: Tablings in Parliament for Parent Crown Corporations: Annual Reports and Summaries of Corporate Plans and Budgets
E.	Taking Stock of Special Operating Agencies – A Summary of Conclusions of Joint Public and Private Sector Steering Committee
	Studies
2	5 An Innovative Society and the Role of Government
3	6 Study of Key Federal Social Programs
4	7 Information for Parliament: Departmental Reporting on Sectoral Activities and Follow-up of 1992 Chapter on Departmental Reporting
5	8 Information Technology – Reaping the Benefits and Managing the Risks
	Audits
6	9 Science and Technology – Overall Management of Federal Science and Technology Activities
10	Science and Technology – Management of Departmental Science and Technology Activities
11	Science and Technology – The Management of Scientific Personnel in Federal Research Establishments
32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents (cont'd)

Volume	Chapter	
7	12	Aspects of Federal Real Property Management
8	13	Federal Management of the Food Safety System
9	14	Agriculture and Agri-Food Canada – Farm Income Protection
10	15	Atomic Energy Control Board – Canada's Nuclear Regulator
11	16	Correctional Services Canada – Custody of Inmates
	17	National Parole Board
	18	Correctional Services Canada – Supervision of Released Offenders
12	19	Environment Canada – Environmental Partners Fund
	20	Environment Canada – Ice Services
13	21	Foreign Affairs and International Trade Canada – Technical Assistance Contributions to Central and Eastern Europe and the Former Soviet Union
	22	Foreign Affairs and International Trade Canada – Financial Management and Control
14	23	Indian and Northern Affairs Canada – Social Assistance
15	24	National Defence – Defence Management Systems
	25	National Defence – Information Technology
	26	National Defence – Infrastructure Reductions
	27	National Defence – Infrastructure Management
16	28	Revenue Canada – Customs Assessment Activities
	29	Revenue Canada – Collecting Income Tax Debts
	30	Revenue Canada – Goods and Services Tax: Audit and Special Investigations
	31	Revenue Canada – Ensuring Fairness of the Income Tax System: Detection of Non-Filers and Special Investigations
	32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development
	33	Department of Finance and Revenue Canada – Tax Assistance for Retirement Savings
17	34	Public Works and Government Services Canada – Management and Operation of Crown-owned Office Buildings

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1994 Report of the Auditor General of Canada to the House of Commons

Volume 3 – Table of Contents

Chapter		Page
6	Study of Key Federal Social Programs	6-3

Chapter 6

Study of Key Federal Social
Programs

Table of Contents

	Page
Foreword	6-5
Main Points	6-6
Background	6-9
Purpose of the Study	6-9
Program Areas Included in Social Security Review	6-9
Transitions Occurring in the Labour Market: “Canadian Realities”	6-11
The National Picture	6-11
The Constitution	6-15
Weaving the Social Safety Net	6-17
The Federal Share of Social Programs Spending	6-17
Recent Budget Proposals	6-21
Significance of Federal Social Programs	6-22
Socio-economic Trends	6-23
Information on Program Results	6-30
Program Activities Reviewed	6-31
Recent Program Evaluation Reports	6-32
Intended Effects	6-33
Positive Effects of the Programs	6-36
Unemployment Insurance	6-36
Canada Assistance Plan	6-38
Training	6-39
Negative Effects of the Programs	6-41
Inter-program Linkage	6-46
Matters Related to the Financing of UI	6-50
UI Contributors and Beneficiaries	6-52
The Cost of Financing the UI Deficit	6-53
The Impact of the UI Deficit on the Government of Canada Deficit	6-55
Information Gaps	6-55
Conclusion	6-58
Exhibits	
6.1 The Canadian Environment	6-12
6.2 Public Social Spending in Canada by Jurisdiction and as a Share of the Gross Domestic Product	6-14

Table of Contents (cont'd)

	Page
6.3 The Weaving of Canada's Social Safety Net	6-16
6.4 Federal Revenue Mix 1993-94	6-18
6.5 Change in Federal Revenue Mix 1980 and 1992	6-18
6.6 Social Programs Share of Federal Budget 1993-94	6-19
6.7 Federal Social Programs	6-20
6.8 Shares of Revenue and Spending by Level of Government 1993	6-21
6.9 Federal Expenditure Items as a Percentage of the Gross Domestic Product 1967-1993	6-22
6.10 Rising Skills Levels/Years of Education and Training Required by Work Force	6-24
6.11 Population and Labour Force Growth 1961-2000	6-25
6.12 Youth Share of the Labour Force 1966-2000	6-25
6.13 The Middle Ageing of the Work Force	6-25
6.14 Unemployment Rate 1961-1992	6-26
6.15 Average Annual Employment Growth	6-26
6.16 UI Beneficiaries by Number of Wage Earners in Family 1989	6-27
6.17 Regional Unemployment Disparities	6-27
6.18 Percentage of Immigrants Finding Employment to the Total Employment Growth 1986-1991	6-28
6.19 Unemployment and Job Vacancies in the Economy – Selected Years	6-29
6.20 Comparative Levels of Income Support for Unemployed Workers in the G-7 Countries	6-29
6.21 Real Average Annual Wage Income for Both Sexes in Canada 1950-1990	6-30
6.22 Income Inequality With and Without Income Transfer Programs 1971-1991	6-30
6.23 Total Government Income Transfers by Income Level as a Share of Incomes in Canada 1961-1992	6-31
6.24 Program Objectives and Potential Positive Effects	6-34
6.25 Selected Statements of UI Objectives and Sources	6-35
6.26 Interprovincial Redistributive Effects of the UI Program 1992	6-36
6.27 Expenditure on Unemployment Compensation as a Percentage of the Gross Domestic Product versus National Unemployment Rate	6-40
6.28 Unemployment Compensation Active Measures versus Passive Measures as a Percentage of the Gross Domestic Product	6-41
6.29 Unemployment Insurance and Social Assistance Payments in Canada in 1994 Constant Dollars and National Unemployment Rate 1966-1992	6-42
6.30 Risk Analysis, UI Work Disincentives and Canada's Unemployment Rate	6-45
6.31 The Federal Social Safety Net Programs	6-47
6.32 Incentives (and Disincentives) by Household Type	6-49
6.33 Financial Situation of the Unemployment Insurance Account 1989-1993	6-51
6.34 Ratio of UI Benefits to Program Contributions by Industry 1992	6-53
6.35 Unemployment Insurance Premium Rates and Fiscal Situation 1972-1993	6-54
6.36 Measurement of Program Results	6-56

Foreword

The decision by the government to conduct a Social Security Review came at a time when we were considering the importance of information to Parliament on the results that social programs have achieved over the years, and on the issues involved. This presented the Office with a dilemma.

It is clearly the government's prerogative to review Canada's social policies with a view to seeking changes from Parliament, without interference from us. Indeed, it is obviously the government's responsibility to deal with policy matters, not ours. Furthermore, although we would be dealing with matters of legitimate concern to the Office, we would not wish our work to disrupt unduly the efforts of officials working on the government's policy review.

At the same time, we were convinced that we could make a contribution to Parliament's consideration of this subject, on the basis of both our past audit work and the work we could undertake. Therefore, we decided to publish a study that would be largely based on our past work and on material recently available on the programs under review.

This is a departure for the Office, in that large portions of this study are not based on regular audit work. We believe, nevertheless, that our bringing available information on the value-for-money and financial elements of the programs under review together with background information can be useful to Parliament when it considers the government's eventual proposals. We also believe that our analysis of program results and the identification of information gaps can make a worthwhile contribution to the information to be considered by Parliament.

The study was undertaken in such a way as to minimize disruption of the work being done by departments (Human Resources Development and Finance) in support of the government's policy review. Departmental officials have had an opportunity to read this study report in draft form and were asked to confirm any data that originated from their departments and to indicate any important disagreement with the information provided.

One final point should be noted. Much of the information available on the impact of these programs comes from economic and social studies. These can be subject to a margin of error in individual instances. However, since there is considerable corroboration of basic conclusions from a variety of sources, we believe that the material we cite gives a reasonable, if approximate, perspective on those areas where there is information on what the programs are doing. We also note important areas where further information and clarification are required.



Study of Key Federal Social Programs

*Assistant Auditor General: Richard B. Fadden
Responsible Auditor: Louis J. Lalonde*

Main Points

6.1 The government has identified eight program areas that are to come under scrutiny in its planned Social Security Review: unemployment insurance, social assistance, training, employment, labour market regulation, taxes, program management and administration. Our study focussed on three key social policy areas: unemployment insurance, social assistance and training – examining their workings and exploring some serious issues raised for each. In aggregate, these three areas accounted for more than \$26 billion in federal program expenditures in 1993–94.

6.2 A central concern in our study is that Parliament, as it reviews proposals for reform, lacks important information on the performance and effects of existing social programs. We believe Parliament should know whether these programs are producing the results expected, whether value for money is being obtained, and whether the programs in certain circumstances are having possible negative effects on the economy.

6.3 To assist Parliament, we attempted to put together, using official and public sources, an overview of Canada's social safety net. We focussed on federal government expenditures and the role of federal social spending in the national economy. We also reviewed certain economic and social trends that touch the lives of Canadians and that affect the shape of future social programs.

6.4 We have also looked at the cross-subsidization occurring among industrial sectors and at the difficulties raised by the inclusion of seasonal workers in the Unemployment Insurance Program. We discuss the timing and impact of premium rate increases on the economy, the cost of financing the UI deficit, and the effect of the current funding provisions on the federal deficit.

6.5 We noted that studies of social programs may use different definitions of the activities that could be grouped under the title of social spending, and in the calculations of actual expenditure. We are concerned that these differences in definition may cause difficulties for parliamentarians and others as they review existing and proposed social programs, because such differences complicate the tasks of comparing and analyzing program costs and benefits. This point is important, as there is no consensus on how much our social security system costs and how it compares with those of other countries.

6.6 What the numbers clearly show is that the scale of expenditure is huge, whether measured against the overall federal budget or against the size of the Canadian economy.

6.7 A large portion of this money goes directly back to individual Canadians, although several studies indicate that this spending does not always serve to redistribute funds among the various income groups.

6.8 The studies also indicate that the increased costs of social programs since 1975, combined with other government expenditures, could not be sustained over the years by the tax revenue available and, therefore, significant borrowing became necessary.

6.9 Clearly, the economy is in the throes of change. The changes provide a context for assessing existing and proposed social programs. For example, the information available suggests that:

Main Points (cont'd)

- the pace of industrial adjustment is increasing, and requiring higher levels of education and skills from the work force;
- labour force growth is slowing, the number of young workers is declining, and there are new pressures on long-time employees to adjust;
- the unemployment levels have been moving upward, particularly since the 1970s; and
- temporary or unstable jobs are on the rise.

6.10 The studies we reviewed indicated that existing social programs are having positive results. For example:

- Unemployment Insurance benefits and Canada Assistance Plan transfer payments provide an important social safety net to people in need;
- social programs appear to have made important contributions to reducing regional income disparities;
- Unemployment Insurance has acted as an important economic stabilizer for the economy;
- certain training programs have been effective in increasing earnings and employability of recipients.

6.11 However, there are also indications of possible negative effects associated with the social programs under study. We note that most, if not all, social programs, have the potential to produce such effects. Thus, an analysis of proposed changes to existing programs should include an examination of the possible negative effects that could result from the changes. Possible negative effects that have been associated with existing programs include:

- rising social program use and high repeated use suggest the social programs may be creating a long-term dependence among some users;
- disincentives to work when benefits from social programs are compared to earnings from jobs;
- employers and employees may be using Unemployment Insurance to support short-term layoff strategies;
- interactions among social programs may result in the programs working at cross-purposes; and
- Unemployment Insurance may be a factor in Canada's rising level of unemployment and in the lower level of output that results.

6.12 Although tentative conclusions can be made about the effects of social programs, there are insufficient data to make a proper assessment. It is only recently that the government began an assessment of the impacts and effects of the Unemployment Insurance regular benefits on the clientele and on the economy as a whole. More assessment is needed to get an overall picture. There is even less information on social programs that are supported by the Canada Assistance Plan and operated provincially.

6.13 To assist in identifying the needed information, we summarize our findings on key gaps in information available on the workings and impact of the programs studied. We realize that it will not be possible to address all our concerns on information gaps at once. Therefore, it is important for the government to identify the gaps that should be addressed sooner rather than later.

6.14 Parliamentarians need a clear picture of the impacts of social programs on the well-being of Canadians, and their effects on workers' and employers' behaviours toward the labour market. The size and complexity of these programs, and the links between them increase the need for comprehensive and reliable information about results, and particularly about those results that could have a major impact on the redesign of government social programs and policies. We believe that efforts will be worthwhile, notwithstanding the difficulties that will undoubtedly be encountered.

Background

Purpose of the Study

6.15 The Office of the Auditor General has undertaken a study of the federal government's social programs, with a focus on their characteristics, the expenditures involved and the results they have achieved to date. We hope thereby to contribute to an informed public debate on the performance of federal social programs. In particular, this chapter:

- provides background to the study, tracing the federal government's share of social programs and the impact of social spending on the federal debt;
- looks at some trends in the economic and social environment that are particularly relevant to the analysis of social programs;
- uses available information to determine how programs in three key social policy areas have performed;
- discusses in separate sections matters related to the financing of Unemployment Insurance and to key information gaps; and
- concludes by highlighting several concerns that we believe should be of significance to Parliament.

6.16 We recognize that the government's Social Security Review raises important policy questions, some cutting across programs and levels of government and touching most Canadians. It is obviously not our role to tell Parliament what to do. Our concern is that parliamentarians have sufficient information to take appropriate action on value-for-money questions or information issues related to federal social programs. Yet in any major reform of this nature, conditions of certainty are often lacking.

Program Areas Included in Social Security Review

6.17 The government's decision to reform Canada's social security system over the next two years was announced in the Speech from the Throne on 18 January 1994:

"Canada's social security system must be responsive to the economic and social realities of the 1990s. The Government will announce an action plan for major reform of the social security system to be completed within two years. The Government will work closely and co-operatively with the provinces and will consult Canadians on the modernization and restructuring of our collective social security. New legislation will then be placed before Parliament."

Also, as announced in the speech, the government plans to sponsor, later this year, a Forum on Health in co-operation with the provinces, to discuss a renewal of Canada's health system.

6.18 In a motion tabled in the House of Commons on 31 January 1994, the Minister of Human Resources Development and of Western Economic Diversification offered more information about the government's decision. The Minister delimited the Social Security Review to the following program areas: unemployment insurance, social assistance, training, employment, labour market regulation, taxes, program management and administration. The Minister stated that change should not be piecemeal, ad hoc or simply tinkering. Programs, he said, "link, they connect, they merge". He added that Canadians themselves would help define the issues.

6.19 The Minister also set two goals for his action plan: to clearly confront the issues facing Canadians and to propose clear options for change. He described the

issues and underlying goals in the following terms.

Issues Facing Canadians:

- long-term structural unemployment, even in times of growth;
- the impact of accelerated technological change on labour market and training systems;
- unacceptably high drop-out rates and illiteracy levels, and skills shortages;
- the need to make better use of workers and provide new opportunities for new workers;
- poverty, especially among children;
- lack of training and work for young people;
- tensions between new family structures and the demands of work;
- duplication of government programs; and
- limited financial ability of governments.

Goals and Approaches Underlying the Action Plan:

- to meet basic labour market adjustments and insurance requirements;
- to restructure parts of the Unemployment Insurance Program and Canada Assistance Plan to create a new form of employment insurance;
- to help people make the crucial transition from school to work by providing a range of options and training, apprenticeship, community service and work;
- to broaden our educational and training assistance to support lifelong learning;
- to enhance support and care of our children in society;

- to redefine the distribution of work and rules of the workplace;
- to ensure that individuals with disabilities can achieve equality, independence and full participation;
- to seek a much better balance between incentives for job creation and payroll tax levels;
- to ensure basic security for those in need;
- to redefine responsibilities between governments and strengthen co-operative arrangements;
- to achieve savings through greater efficiency; and
- to design new, smarter ways to deliver services and avoid duplication.

6.20 The Minister's motion also directed the House of Commons Standing Committee on Human Resources Development to consult broadly, to analyze, and to make recommendations for the modernization and restructuring of Canada's social security system, with particular reference to the needs of families with children, of youth and of working-age adults.

6.21 The government also stated in the Budget Plan of February 1994 that it will release a paper that will examine the challenges and opportunities posed by Canada's ageing society. It also singled out the Canada Assistance Plan and the Post-Secondary Education transfers as programs that may be modified or replaced pursuant to the Social Security Review. Options to reform the Canada Student Loans programs will be considered separately.

6.22 Several important measures were announced in the Budget Plan. It provided \$400 million for 1995-96 and 1996-97, to develop innovative approaches for social security, and \$1.7

billion over the next five years for displaced workers of the Atlantic groundfish industry. Immediate measures were introduced to constrain or reduce UI expenditures and social security transfers to provinces and territories. These are discussed further in paragraphs 6.62 to 6.66.

6.23 In March 1994, the Standing Committee on Human Resources Development issued an interim report on the views of Canadians on the reform process. A number of witnesses appearing before the Committee were concerned about:

- the fundamental alterations in the nature and organization of work itself;
- the constant interaction of economic changes with broader social and demographic shifts;
- the persistently high levels of unemployment, and jobless economic growth; and
- the fiscal situation facing Canada.

6.24 Opinions differed on the emphasis that should be placed on the deficit in the context of a Social Security Review. Some witnesses clearly felt that the deficit position threatens both current and future social security arrangements. Other witnesses claimed that social spending is not the cause of the deficit but reflects low levels of employment and the attendant need to provide income support. Others were of the view that the current economic situation causes increased spending and has important social and human costs.

Transitions Occurring in the Labour Market: "Canadian Realities"

6.25 Several studies and reports have depicted Canadian demographic and

labour market trends that are important to any understanding of social needs today. One report by the Canadian Labour Force Development Board looked at the kinds of transitions occurring in the labour market. According to the Board, the demographics of the Canadian population and its uneven distribution have significant effects on transitions into employment. Age, gender, and ethnic factors have profound consequences for Canadian society, and particularly for the labour force. The combined effects of low fertility rate, increased life expectancy, and immigration are rapidly changing the structure of the population. Exhibit 6.1 includes some of the "Canadian realities" described in the report.

6.26 *Social Security in Canada* and *Canada's Economic Challenges*, two booklets published by the Department of Human Resources Development and the Department of Finance respectively, provide further information on major trends affecting Canadians.

The National Picture

6.27 In the following paragraphs, we outline the magnitude of social programs and how responsibilities are divided between the federal government and the provinces, as spelled out in the Constitution. Later sections show the federal programs created over the past 50 years, which constitute the safety net as we know it now, and trace the financing of the social programs and its importance in relation to overall federal government expenditures.

6.28 The Caledon Institute of Social Policy (a private non-profit organization) has provided the Office with updated estimates of the social spending figures published in its 1993 report, *Opening the Books on Social Spending*. The figures cover spending on the broad range of

Exhibit 6.1

The Canadian Environment

The Diversity of Individual Situations

Ageing of Canadian society. Recent and projected figures clearly show that the labour force is ageing; the proportion of people under 35 years of age (15–24 and 25–34 groups) has decreased from almost 60% of the labour force in 1980 to less than 50% in 1990 and is expected to be under 40% by 2005. Actually, the trend is toward “middle-ageing” as the proportion of people 55 years of age and over has been decreasing and is now becoming stable. The decline in the proportion of youth is not simply a relative phenomenon. In the early 1990s, the number of 15 to 24 year old workers decreased to fewer than 2.5 million; in 1980 it was over 3 million. The sharp decline in fertility rate in the 1960s and 1970s, to well below the generation replacement rate in the first half of the 1970s, is having an impact.

Immigration. In Canada, immigration is a major factor in population growth. Immigration accounted for 24% of the net population growth in the first half of the 1980s; it now accounts for 50% and this share is likely to continue to increase. Although Canada has counted upon immigration, with variations over the decades, to increase its population, the composition of the immigrant population has changed dramatically.

Equity groups and occupational structure. All the designated groups—women, aboriginal peoples, people with disabilities, and members of visible minorities—face difficulties in the labour market. Underrepresentation in the labour force indicates some of the difficulties. Public policy and labour market partners must meet the challenge of easing access to jobs, training, and employment opportunities for these groups. The designated groups are underrepresented in both highly skilled, highly paid occupations and skilled crafts and trades.

Labour force status and level of education. Despite the problem of a high-school drop-out rate that is too high, the educational attainment of the Canadian labour force is rising rapidly. The proportion of the labour force with education beyond high school has risen from less than a third in 1975 to more than half in 1992. The 15 to 24 year old group is divided into full-time students and others. Some full-time students (35%) also hold a job, usually part-time.

Geographic distribution of equity groups. Canada’s challenges are not only related to the demographic trends and the increasing diversity of its population and labour force, but also to the uneven distribution of the population and its components across the country. The provinces east of Ontario have a lower than average proportion of both visible minorities and aboriginal peoples. The other provinces show a higher share of one or both of these groups. Also significant is the age distribution of aboriginal peoples and members of visible minorities compared with the overall population. The growing presence and the geographic distribution of these equity groups in the labour force will exert pressure for adequate support services.

The Labour Market

Trends in employment by industry. In the 1990s, service industries will account for close to 90% of employment growth, while less than 10% will be contributed by manufacturing industries. Among service industries, prospects for employment will be important in the health and education sectors.

Trends in employment by occupation. The Canadian economy of the 1990s will be characterized by a movement toward jobs demanding higher levels of education and training. Most recent projections of employment by occupation show that, although in 1986, 23% of the labour force were in jobs requiring more than 16 years of education or training, 48.5% of new jobs created in the 1990s are expected to require that level of education or training. Conversely, 55% of the 1986 labour force had 12 years or less of education or training (high-school level), and only 36% of new jobs in the 1990s are expected to demand such a minimal level. Although substantial growth in employment will occur in occupations that require skill and training, strong growth is also envisioned in particular occupational streams where 12 years or less of education are sufficient. For example, employment in personal and household services should grow 2.8% annually.

Trends in self-employment. In 1971, 540,000 workers were self-employed; in 1991, the number was 1,109,000, reflecting a growth that outpaced that of paid workers (105% vs. 70%). The rate of growth was similar to that of overall employment in the 1970s, but was much higher in the 1980s.

Changes in the workplace. Future transitions in employment must be considered against the background of a number of forces shaping the workplace of the 1990s. Internationalization of the Canadian economy, and re-engineering of processes due to advances in computing and communications have produced fundamental changes in the working environment. These changes are likely to increase in the future. With the increased participation of women, dual-earner families, and single parents in the labour force, workers are facing the challenge of balancing work and family responsibilities and are placing increasing pressure on employers to meet these changing needs.

People Making Transitions

The difficulty of getting a new job. Statistics show that less-educated Canadians experience more transitions, take longer to find full-time jobs, receive much lower pay, and have limited opportunities to catch up with more-educated Canadians.

It is also clear that members of designated groups are at a disadvantage in the Canadian labour market. They experience lower employment stability and suffer more often from lack of information and recognition of their skills, experience, and education. As a result, they are forced to accept lower-quality jobs.

Education

The experience of school leavers. Two education variables are key predictors of the success of the transition process: type of qualification and field of study. Generally, the more advanced the qualification the better the transition outcome, and graduates from the more applied disciplines had a distinct advantage in the transition process.

People who did not graduate from high school were more likely to experience discontinuities in employment than better-educated people. In other words, the lower the education level, the higher the probability of experiencing job instability. Level of education has substantially affected wage rate in a new full-time job. Education is also a crucial factor in making a financially rewarding transition from school to work.

Source: *Putting the pieces together: Toward a coherent transition system for Canada's labour force*, Report of the Task Force on Transition into Employment to the Canadian Labour Force Development Board, April 1994, Chapter 2, The Canadian environment

income security and labour market programs, social services and health care delivered by the federal, provincial and local governments, enabling us to draw a national picture. Exhibit 6.2 shows both public social spending in Canada by jurisdiction and total spending as a percentage of the Gross Domestic Product (GDP). In constant 1994 dollars, total social spending went from \$26.3 billion in 1966-67 to \$147.8 billion in 1992-93, representing respectively 8.3 percent and 21 percent of the GDP.

6.29 There is, at the present time, no single way of describing Canada's social safety net. Authorities have different views on what its components are, and have come to different conclusions about both its reach and its cost.

6.30 The social safety net is about people. It reaches millions of Canadians, from children to the elderly, from the unemployed to the disabled. One person's

notion of social policy will differ to some extent from that of someone else.

6.31 We reviewed many studies and publications in an effort to grasp the nature and extent of the social safety net. "Social programs", "social safety net", "social policy", "social welfare", "social services", and "the welfare state" are used often as synonyms but some believe that these terms have different meanings. In various studies, the programs are brought together under the label of social spending, social security or simply, social programs. A distinction ought to be made in order to allow comparisons among them.

6.32 "Social spending" generally incorporates federal, provincial and local government social expenditures and the costs of social insurance (Unemployment Insurance, Workers' Compensation and Canada/Quebec Pension Plans) that are supported through employer and employee contributions. Social spending also

includes the costs of income transfer programs, employment programs, social services and health care. "Social programs" encompasses all programs that are designed to improve the economic or social well-being of persons or groups of individuals and that are delivered by governments. "Social security", according to Statistics Canada, encompasses a subset of social programs, namely, those directed at income security.

6.33 There are different estimates of social spending virtually everywhere one looks, domestically and internationally. Thus, estimates of spending in the social

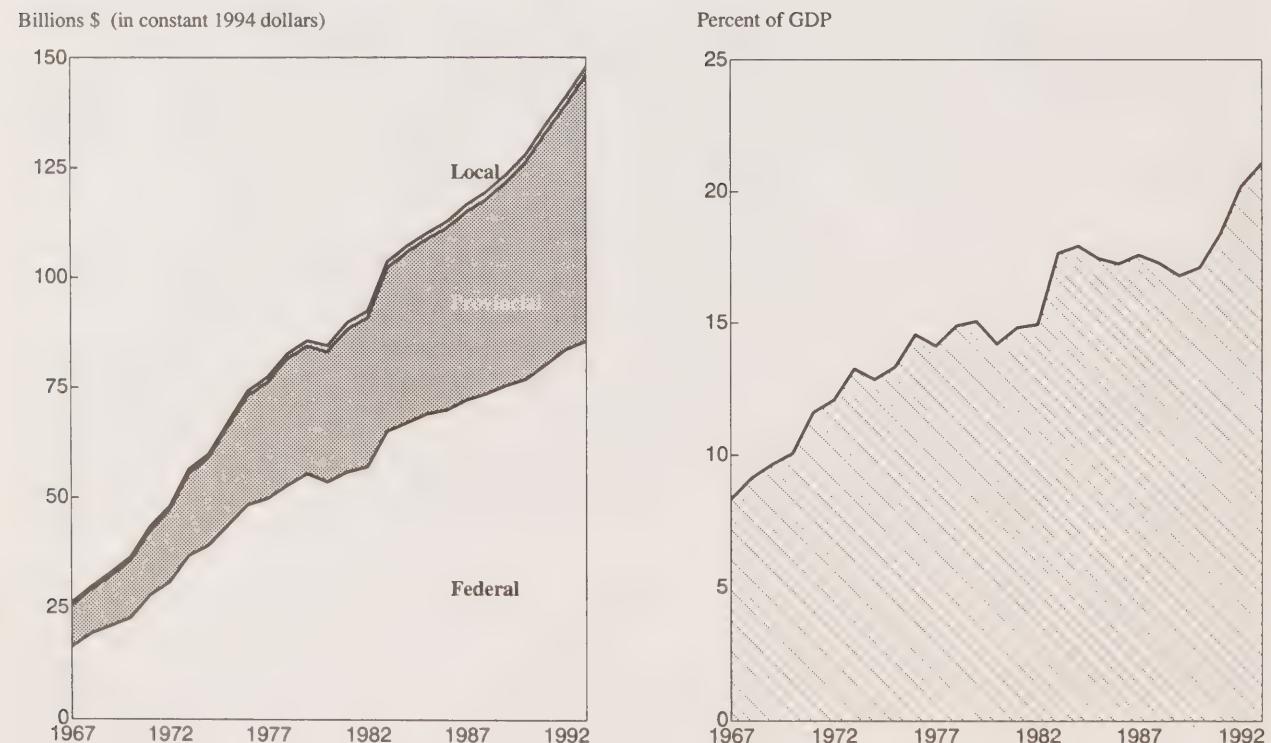
field vary widely, depending on what is included in the package. None of these estimates includes tax expenditures. To illustrate the range of views, we present the positions of the Caledon Institute of Social Policy, the Department of Finance and Statistics Canada.

6.34 The Caledon Institute estimates that, in current dollars, gross spending in the social field in Canada reached \$144 billion in 1992-93.

6.35 In January 1994, the Department of Finance published a background paper on federal spending in 1992-93. The document identifies the federal

Exhibit 6.2

Public Social Spending in Canada by Jurisdiction and as a Share of the Gross Domestic Product



Source: Caledon Institute of Social Policy

Total Social Expenditures

government's involvement in the social sphere and its spending.

6.36 The Department describes social spending as "encompassing a range of programs designed to enhance the quality of life of Canadians, particularly those who have modest incomes or who are disadvantaged." For the Department, this includes income support, mostly for the elderly and unemployed; transfers to the provinces for health, education and social assistance; and programs for aboriginal Canadians. It also includes spending in areas such as social housing, student loans, worker training and adjustment.

6.37 The Finance figures show federal social program spending at \$49.6 billion for 1992–93, including \$42 billion in direct transfers to individuals. Another \$18 billion in cash transfers went to the provinces for education, health care and social assistance, to bring total social spending to more than \$67 billion. A further amount of about \$12 billion was provided to the provinces in the form of tax transfers; these represent the value of income tax points in respect of specific program areas, transferred to provinces in lieu of direct cash transfers.

6.38 Social security, according to Statistics Canada, covered a total of \$78 billion in expenditures at the federal, provincial and municipal levels for 1990–91.

6.39 Differences in definition and coverage make it difficult to obtain consistent data for comparisons and trend analysis. Tax expenditure data are vital for a proper measure of social spending and should be included because the federal and provincial governments make extensive use of the personal income tax system to deliver social benefits. Furthermore, while most social programs in this country are financed and

administered by governments, important social benefits are also delivered by employers, the volunteer sector, the private sector and family members. The timely availability of such comprehensive information can only help policy makers in the current review of social programs.

The Constitution

6.40 Power sharing is the cornerstone of federalism. The Canadian Constitution and the courts that have interpreted it establish where legislative power lies, federally and provincially.

6.41 The Constitution empowers the federal government to operate three major income support programs: Unemployment Insurance, Old Age Security and the Guaranteed Income Supplement.

6.42 Under the Constitution, the provinces have jurisdiction over major aspects of social security, such as health, welfare, and education. The provinces also have jurisdiction, with important exceptions, over labour matters.

6.43 The federal government has some responsibility in the social security fields by virtue of its spending powers. This means it may set general conditions and provide financial support. It may not administer the programs.

6.44 Other activities are a matter of common jurisdiction. Both levels of government may operate in the pension area, where the provinces have primacy, and in the immigration field, where federal law takes precedence.

6.45 The *Constitution Act, 1982*, committed both levels of government to jointly pursuing national equity goals. The Charter of Rights and Freedoms offered mobility and equality guarantees. Further, the Constitution, as amended in 1982, committed the federal government

The Weaving of Canada's Social Safety Net

Major Federal Acts Descriptions and Changes

Year	Act	Key Descriptions/Changes
1940	<i>Unemployment Insurance Act</i>	A new insurance program, partly financed by employee and employer premiums, provides income support during temporary unemployment.
1944	<i>Family Allowances Act</i>	Provides assistance to all families with children under age 18.
1951	<i>Old Age Assistance Act and Old Age Security Act (OAS)</i>	Replace <i>Old Age Pensions Act</i> of 1927. Universal pensions paid, without a means test, to certain Canadian residents aged 70+.
1957	<i>Hospital Insurance and Diagnostic Services Act</i>	Government provides contributions for provincial costs of insured services.
1965	<i>Revised Old Age Security Act (OAS)</i>	Government announces OAS age of eligibility gradually lowered to 65.
1965	<i>Canada Pension Plan Act</i>	New social insurance program, compulsory for paid workers and self-employed, provides retirement, survivor, disability and death benefits.
1966	<i>Canada Assistance Plan Act</i>	Legislation commits government to 50% cost sharing of social assistance and, for the first time, social service expenditures.
1966	<i>Medical Care Act</i>	Government undertakes to share cost of provincial plans insuring doctors' services, supplementing the earlier Hospital Insurance Program. By 1972, basic health expenses of all Canadians are covered.
1966	Guaranteed Income Supplement (GIS) introduced to <i>Old Age Security Act</i>	Government makes additional income benefits available to low-income seniors.
1971	<i>Revised Unemployment Insurance Act</i>	Revisions relax the rules, broaden scope to cover most employees, increase benefits. New benefits offered for job loss due to sickness, disability or maternity. Rules vary from region to region.
1973	<i>New Family Allowances Act</i>	Replaces old Act of same name and <i>Youth Allowances Act</i> of 1964.
1975	Spouse's Allowance (SA) introduced to <i>Old Age Security Act</i>	Act provides income assistance to persons in need, aged 60–64 and married and living with Old Age Security recipients. Benefits extended to widows and widowers aged 60–64.
1977	<i>Federal-provincial Fiscal Arrangements and Established Programs Financing Act</i>	Shared-cost arrangement changed to a block-funding formula.
1978	Child Tax Credit introduced to <i>Income Tax Act</i>	Provides additional child benefits to low and middle-income families, over and above their family allowances.
1978	<i>Revised Unemployment Insurance Act</i>	Benefit rate reduced from 66 2/3% to 60% of insurable earnings.
1979	<i>Revised Family Allowances Act</i>	Family Allowance payments are set at the minimum level prescribed in the Act.
1984	<i>Canada Health Act</i>	Replaces <i>Hospital Insurance and Diagnostic Services Act</i> and <i>Medical Care Act</i> . Provinces must adhere to conditions – comprehensiveness, universality, portability, public administration and accessibility – in order to receive federal funds for insured health care services.

Denotes a reduction/clawback in program

Year	Act	Key Descriptions/Changes
1990	OAS/GIS/SA OAS no longer “universal”. While all individuals over 65 years qualify, not all may receive the same benefit amount.	A special “clawback” tax is imposed on these pensions. Under it, recipients are subject to a 15% tax on net income exceeding a threshold (\$53,215 in 1993). Full repayment of OAS benefits occurs at a net income level of approximately \$83,800.
1990	Canada Assistance Plan – “Cap on CAP”	Annual increases to the Canada Assistance Plan to the provinces of Ontario, Alberta and British Columbia are capped at 5%.
1990	Revised <i>Unemployment Insurance Act</i>	Developmental uses of UI: more funds available for job training, job creation and work sharing. An increase in penalties for those who quit without just cause, refuse a job or are fired for misconduct. Entrance requirements tightened and benefit period cut back.
1992	Child Tax Benefit introduced to <i>Income Tax Act</i>	Income-tested tax credit: child tax credits deleted and <i>Family Allowances Act</i> replaced.
1993	Revised <i>Unemployment Insurance Act</i>	Benefit reduced to 57% of insurable earnings. New restrictions on qualification for benefits. Complete disqualification for workers who leave their jobs voluntarily without just cause or lose their employment by reason of misconduct.

and the provinces to promoting “equal opportunities for the well-being of Canadians” and “providing essential public services of reasonable quality to all Canadians”.

Weaving the Social Safety Net

6.46 Exhibit 6.3 outlines the weaving of the federal component of Canada’s social safety net from 1940 to 1993. Until 1978, the net was being put together, new programs were being put in place and existing Acts were being expanded. After 1978, the existing programs were revised, clawed back or replaced. Changes introduced in the 1994 Budget Plan are described in paragraphs 6.62 to 6.66.

The Federal Share of Social Programs Spending

6.47 We now discuss who is responsible for financing social programs.

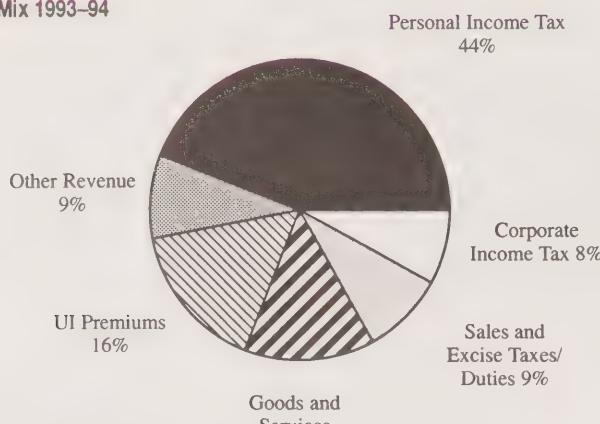
We attempt to clarify two dimensions of Canada’s social programming: the sources of revenue, and how the funds are distributed to piece together Canada’s social safety net.

6.48 Financing is necessarily a central concern in any serious review of Canada’s social programs. They represent very large expenditures. Therefore, we looked at the sources of revenue and where the social spending occurs.

6.49 Most of the funds for the social programs are raised by two levels of government, federal and provincial, and the costs of some major programs are shared between these two levels. In some provinces, municipal governments share in the responsibility for funding welfare payments. Regardless of which government pays, the source of funds is, for the most part, the same Canadian taxpayer.

Exhibit 6.4

Federal Revenue Mix 1993–94



Source: *Public Accounts of Canada*

6.50 Federal revenues are generated by taxes such as personal income tax, sales and excise taxes, corporate income tax, and payroll taxes such as Unemployment Insurance premiums. Exhibit 6.4 shows the 1993–94 federal revenue mix, which represents a total of \$116 billion.

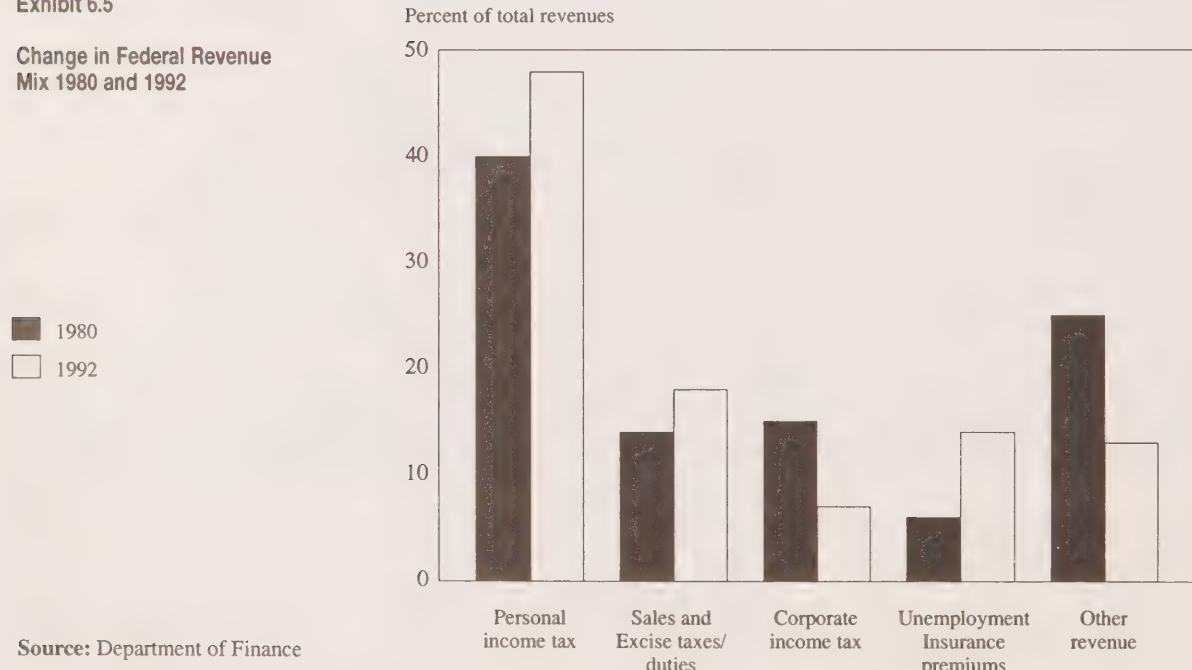
6.51 According to data supplied by the Department of Finance, total government revenues (including federal, state/provincial, and local levels) in most industrialized countries have increased, to varying degrees, as a percentage of Gross Domestic Product (GDP) since 1980. Government revenues in Canada rose from 31.6 percent of GDP in 1980 to 37.3 percent by 1991.

6.52 All taxes have increased, except for corporate income taxes.

Exhibit 6.5 presents the change in the federal revenue mix between 1980 and 1992, as a percentage of total revenues. The share of total federal revenues from personal income tax increased from 40 percent in 1980 to 48 percent by 1992. Sales and excise taxes grew over the period, from 14 percent to 18 percent, and Unemployment Insurance premiums from 6 percent to 14 percent. Furthermore, Unemployment Insurance and Canada Pension Plan contributions from employees increased from 1.8 percent of personal income in 1980 to 2.7 percent in

Exhibit 6.5

Change in Federal Revenue Mix 1980 and 1992



Source: Department of Finance

1992. Including the employers' share, the growth in these payroll taxes during the same period was from 5 percent to 8.5 percent of personal income. Corporate income tax declined from 15 percent in 1980 to 7 percent in 1992. The Department of Finance attributes this primarily to the impact of the recession on corporate profits in the early 1990s.

6.53 The federal government can pursue its social and economic objectives in many ways. Exhibit 6.6 shows where the federal government spends its money, and the portion allocated to social programs.

6.54 Exhibit 6.7 shows the amount spent for each social program and the number of beneficiaries that are assisted. As the Canada Pension Plan (CPP) is jointly administered by the federal and provincial governments, it is not accounted for through the federal government's financial statements; therefore, it is not included in the federal government's spending totals. CPP spending, which excludes Quebec, was around \$13.2 billion in 1993.

6.55 Transfer payments to persons are mainly directed to the unemployed,

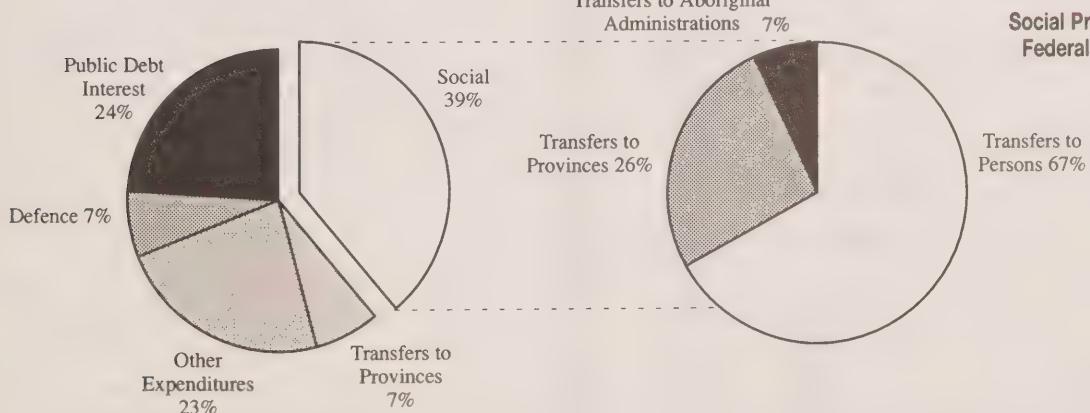
elderly Canadians, children and veterans. Transfers to aboriginal administrations are made for social development, education, community infrastructure, band management, economic development and health. These cash transfers are made through the departments of Indian and Northern Affairs and Health.

6.56 As stated by the Department of Finance in *Federal Spending*, federal transfers to provinces "help the provinces in providing services such as medicare, education and social assistance."

6.57 In the case of transfers to other levels of government, as illustrated by Exhibit 6.8, the government responsible for taxing is not always the one responsible for spending. Thus, taxpayers cannot easily associate the services provided by a government with the taxes paid to that government. We acknowledge that intergovernmental transfers are a necessary part of any decentralized system of government, such as the Canadian system, to ensure efficient allocation of resources across provinces. While they may pursue other laudable policy goals, intergovernmental transfers can obscure the relationship between programs and taxes. Thus, accountability

Exhibit 6.6

Social Programs Share of Federal Budget 1993-94



Source: Department of Finance

can be blurred when governments spend money they have not raised directly.

6.58 The government may also pursue policy objectives through the income tax system, providing relief from the payment of taxes through such measures as income exclusions and deductions, tax credits and deferrals. In many ways, these measures represent an alternative form of government assistance, with financial implications similar to those of direct expenditures. Therefore, they are referred to as tax expenditures.

6.59 Reasonable differences of opinion exist on what constitutes a tax expenditure related to social spending.

Different organizations have produced different estimates of social tax spending. The Caledon Institute of Social Policy estimated the federal and provincial social tax spending to be \$28.2 billion (current dollars) for 1991, including provincial revenue losses. The Institute for Research on Public Policy estimated that, for 1989 alone, the cost to the federal government for selected personal income tax expenditures related to social policy objectives was about \$34.4 billion. We have not reviewed the bases for these estimates.

6.60 Tax expenditures pose several problems for measuring social spending, beyond the discussion about what is and

Exhibit 6.7

Federal Social Programs

Programs	1993–1994 Billions \$	1992–1993	
		Billions \$	Beneficiaries
Transfer Payments to Persons			
Unemployment Insurance	17.6	19.1	3,200,000
Old Age Security, Guaranteed Income Supplement, Spouses Allowances	19.9	19.1	3,230,413
Family Allowances	–	2.2	N/A
Veterans	1.4	1.5	188,247
	<i>Subtotal</i>	<u>38.9</u>	<u>41.9</u>
Social Housing	1.9	2.0	
Canadian Jobs Strategy	1.4	1.4	
Student Loans	0.5	0.5	
Immigration – Settlement	0.2	0.2	
Transfer Payments to Aboriginal Administrations			
	<i>Subtotal</i>	<u>4.2</u>	<u>3.9</u>
			N/A
Transfer Payments to Provinces/Territories			
Established Programs Financing:			
● Health	7.2	8.3	
● Post-Secondary Education	2.4	2.9	
Canada Assistance Plan	7.2	6.7	2,975,000
	<i>Subtotal</i>	<u>16.8</u>	<u>17.9</u>
	TOTAL	63.9	67.8

N/A: Not Available

Sources: Department of Finance, Statistics Canada, and *Public Accounts of Canada*

what is not a social benefit. In general, tax expenditures reduce the resources available to fund other programs or to reduce the deficit, and can result in the need for higher tax rates to obtain the same amount of revenue. In the case of social tax expenditures, there is no consistent time series to complement the historical direct spending figures; so, only a partial picture of trends and patterns in total social spending emerges. A recent example serves to illustrate our point.

6.61 Total benefits for children exceeded \$5 billion in 1992–93. Starting 1 January 1993, Family Allowances and the Child Tax Credit and Refundable Child Tax Credit were replaced by a new program, the Child Tax Benefit. Because the new Child Tax Benefit is now delivered through the tax system, it is not included in budgetary spending. Thus, it becomes difficult to make comparisons or analyze trends in program spending in this area.

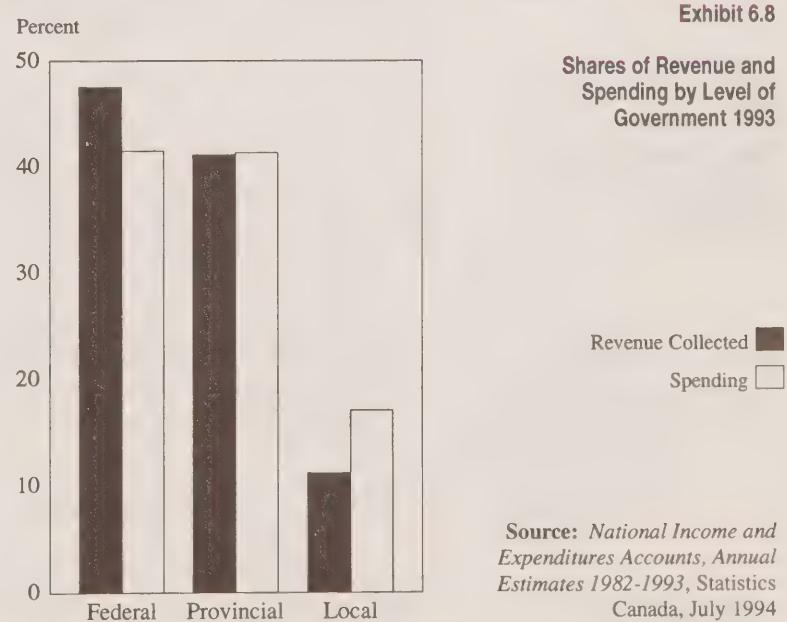
Recent Budget Proposals

6.62 Since deficits became a quasi-permanent feature of federal government budgets in the mid-1970s, various measures have been taken to restrain spending, some of them involving cuts in social benefits. Reductions and clawbacks in social programs are highlighted in Exhibit 6.3. In the Budget Plan of February 1994, the government announced further reductions over the next few years, affecting the Canada Assistance Plan (CAP), Established Programs Financing (EPF) and Unemployment Insurance (UI).

6.63 The Canada Assistance Plan's main objectives are to help provinces provide adequate levels of social assistance and institutional care for persons in need, and welfare services that lessen, remove or prevent the causes and

effects of poverty, child neglect or dependence on public assistance. Until recently, CAP transfers were open-ended, conditional, matching grants available uniformly across all provinces. The federal government placed a limit on annual increases in transfers to three provinces, from 1990–91 to 1994–95, for cost sharing of provincial social assistance and social service programs under CAP ("cap on CAP"). For the other provinces, the federal government pays half the cost of provincial social assistance and welfare services. As shown in Exhibit 6.7, the CAP expenditures for the federal government went from \$6.7 billion in 1992–93 to \$7.2 billion in 1993–94, an increase of over seven percent.

6.64 The Canada Assistance Plan provisions remain unchanged for 1994–95. For 1995–96 and thereafter, transfers to the provinces under CAP will be constrained to 1994–95 levels, subject to whatever change may arise from the Social Security Review. Possible changes are planned for introduction in 1996–97. The cap on CAP remains in place over the



period of the review. Then, according to the Budget Plan, entitlements under CAP, or its successor, will be no higher after reform in 1996-97 than in 1993-94.

6.65 For the Established Programs Financing (EPF), the existing freeze on per capita entitlements remains in place for 1994-95 through 1995-96. For 1996-97, the post-secondary component of EPF will be adjusted so that, when it is combined with CAP (or its successor), the total social security transfer will not exceed 1993-94 levels. The freeze does not apply to the health care component. Thus, there will be a clear separation of EPF into its two components and each will be placed on a different track.

6.66 The Budget Plan proposed the following changes to Unemployment Insurance: a reduction of the maximum duration of claims, an increase in the minimum entrance requirement, and a reduction of the benefit rate in most cases. These measures are expected to reduce Unemployment Insurance expenditures by \$725 million in 1994-95 and \$2.4 billion each year thereafter. Other measures were introduced to reduce premium rates for 1995.

Significance of Federal Social Programs

6.67 Much of the growth in federal expenditures since 1975 has been tied to social programs in general (that is, Transfers to Persons) and to the payment of interest on the federal debt, as shown by Exhibit 6.9. The high and growing proportion of expenditures accounted for by social programs in particular must be considered in any examination of the results achieved by individual social programs (see Information on Program Results).

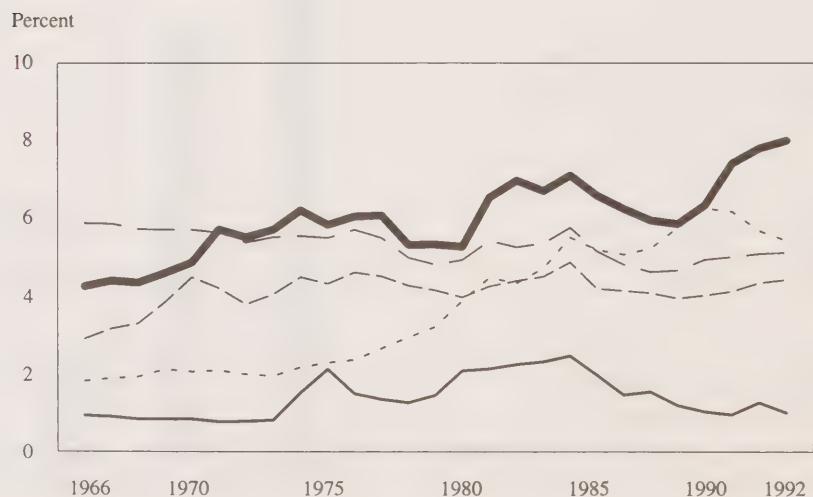
6.68 The long-term trend in federal Current and Capital Expenditures, as a share of the Gross Domestic Product, has been stable with gradual declines. Government Transfers to Business fluctuated considerably in relation to GDP from 1975 to 1985; since then, they have declined significantly. Business Transfers is the smallest of the expenditure categories we examined, and by 1992, it had roughly the same GDP share it had in 1966.

6.69 In contrast, Transfers to Persons and Transfers to Governments grew very rapidly in the second half of the 1960s.

Exhibit 6.9

Federal Expenditure Items as a Percentage of the Gross Domestic Product 1967-1993

- Current & Capital Expenditures
- Transfers to Persons
- Transfers to Governments
- - - Interest Payments
- Transfers to Business



Source: Statistics Canada

While subject to cyclical fluctuation, Transfers to Persons continued a pronounced, long-term upswing. As a share of GDP, the Transfers to Persons ratio grew from a cyclical high of around six percent in the mid-1970s to nearly eight percent by 1992. Transfers to Governments stabilized as a share of GDP from the mid-1970s onward.

6.70 Overall, Transfers to Persons became the single largest item among federal government expenditures from the early 1970s onward, with long-term expansion exceeding the rate of growth in the economy. If payments under the Canada Pension Plan were also included, the level of expenditures under Transfers to Persons would increase even more. As noted, CPP payments are not included as part of the federal government's financial statements and the spending total on social programs. As we indicated in paragraph 6.54, CPP spending was around \$13.2 billion in 1993; a significant addition to the \$50 billion we identified for Transfers to Persons in Exhibit 6.7.

6.71 Since the mid-1970s, social program cost increases have come largely from the growth in federal social security spending, backed by steadily mounting debt charges. These increases have been one of the major contributors to an uninterrupted string of federal government deficits. Other transfers, including those to assist provincial governments' social spending, have been held in check by increasingly stringent measures over the past decade, and have kept in line with the nation's economic growth.

6.72 It is particularly important to consider the cost-effectiveness of each component of Canada's social programs, because of the scale of expenditure and its significance to the deficit and the debt.

6.73 In summary, as we have shown in the Background section, federal social programs enter broadly into the fabric of Canadian life and are a very significant component of public spending at the federal level. The social safety net was established in the four decades between the Great Depression and the late seventies. The federal government's social spending currently ranges up to some \$67 billion and, even by modest estimates, is equal to more than half of federal revenues. Some \$42 billion of this is put directly into the hands of individual Canadians.

6.74 Canada's level of public spending has important implications for its national credit rating and its standing on international money markets. An analysis of social program expenditures and recipients over time furnishes vital information on trends and patterns that, in turn, should help policy makers better understand the social and economic factors that affect the current and future demands on the social security system. However, Canada still needs better social program information for a complete, accurate and consistent accounting of public expenditures.

6.75 The pattern of long-term trends in federal government expenditures indicates that, from 1975, when deficit concerns first surfaced, the increased costs of the social programs, combined with the other program expenditures, could not be sustained over the years by the tax revenue available and, as a result, significant borrowing became necessary. This is reflected in the very significant growth trend in interest payments.

Socio-economic Trends

6.76 This section describes key trends in the economic and social environment

that are particularly relevant to the evolution of social programs.

6.77 These trends (paragraphs 6.80 to 6.101) offer a framework for assessing information on how the programs are functioning and the results they have achieved over time.

6.78 One striking feature that emerges from the description of the current environment is the extent of the changes under way. The trends themselves can be seen to be changing — in many cases, they appear to reflect significant changes in the structure of the economy and the labour market as well as changes in social conditions. This strongly implies that they are unlikely to be temporary in nature or automatically self-correcting.

6.79 In all, we identified 10 basic trends that are of particular importance to the social programs. These are summarized below.

6.80 Industrial adjustment in the economy has been increasing and can be

expected to continue at high levels. The Department of Finance's 1994 publication, *Canada's Economic Challenges*, identified two types of development that are forcing industrial adjustment:

- changing trade relationships (such as The North American Free Trade Agreement and the wider globalization of the economy); and

- technological change and innovation.

6.81 These changes have had a twofold effect: first, a significant increase in occupational skills and education requirements in the work force (Exhibit 6.10); and second, a greater incidence of permanent layoffs and increasing redeployment problems when firms cut back. These developments have major implications for Canada's education and training systems.

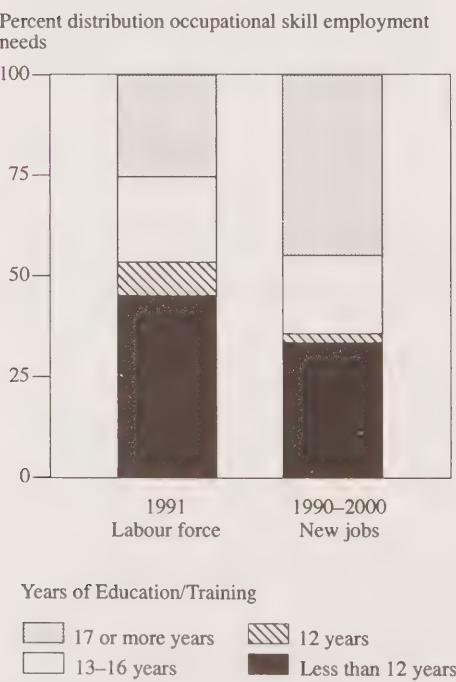
6.82 Major demographic changes under way will affect the use and cost of social programs. The labour force is projected to grow at a much slower rate in the 1990s. It is estimated that, on average, only about 180,000 people will join the labour force each year, compared with over 200,000 during the 1980s and 300,000 in the 1970s (Exhibit 6.11).

6.83 With slower growth in population, young people aged 15 to 24 will make up a smaller portion of the available labour supply (Exhibit 6.12). The "middle age" categories of workers will grow as a portion of the population and labour force (Exhibit 6.13).

6.84 In the past, a large and growing supply of young workers was available to meet the economy's new skill needs. Younger workers change jobs more frequently and have more flexibility to adapt. The ageing of the work force will mean that more and more established workers will be exposed to the industrial adjustment and redeployment process.

Exhibit 6.10

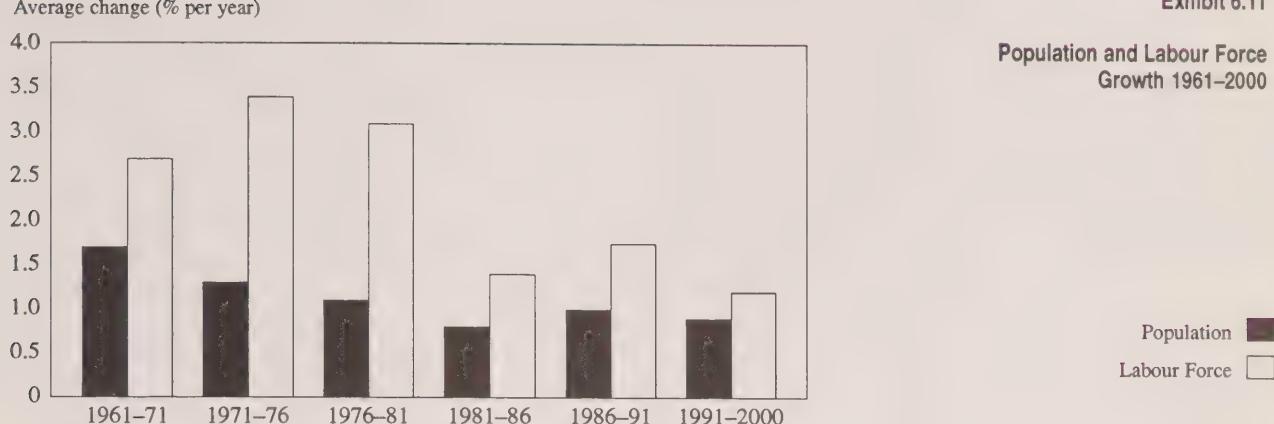
Rising Skills Levels/Years of Education and Training Required by Work Force



Source: Department of Human Resources Development

Exhibit 6.11

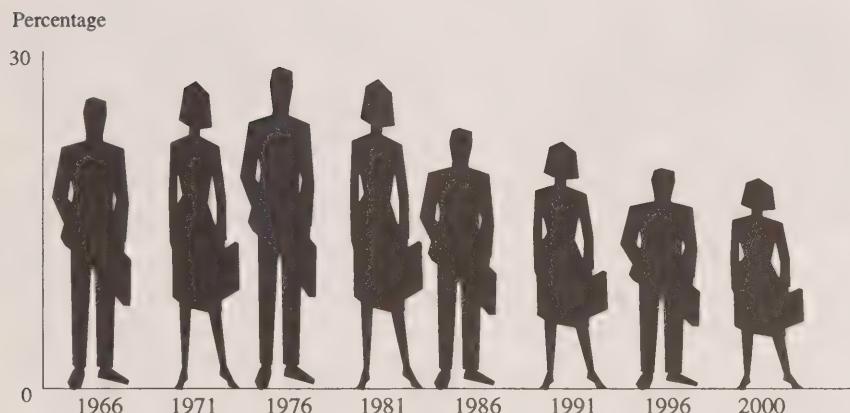
Population and Labour Force Growth 1961–2000



Source: *Success in the Works*, Canada Employment and Immigration Commission, 1989

Exhibit 6.12

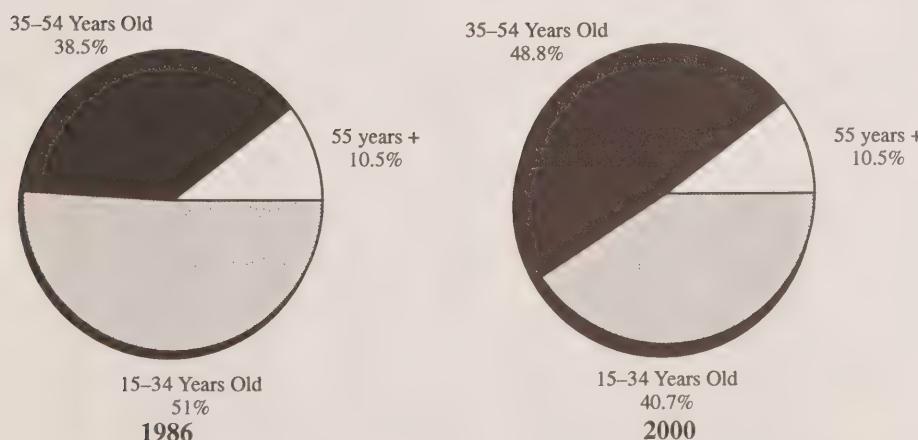
Youth Share of the Labour Force 1966–2000



Source: *Success in the Works*, Canada Employment and Immigration Commission, 1989

Exhibit 6.13

The Middle Ageing of the Work Force

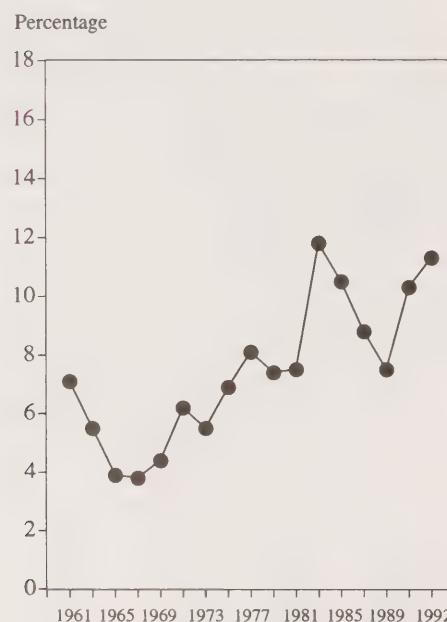


Source: *Success in the Works*, Canada Employment and Immigration Commission, 1989

This will increase the pressure to use social programs to facilitate adjustment and redeployment, rather than simply to provide income support.

Exhibit 6.14

Unemployment Rate
1961–1992



Source: Statistics Canada

6.85 There has been a long-term trend toward increasing unemployment rates. Cyclical unemployment has been an important factor in increasing the numbers of the unemployed since 1990. However, over and above this, the long-term trend in unemployment has

been upward (Exhibit 6.14) and underwent a significant increase commencing in the 1970s. By the late 1980s, even when economic growth was strong, the national unemployment rate did not fall below 7.5 percent, compared with a low of approximately 4.5 percent in the 1960s.

6.86 Over the long term, job creation in Canada has been better than in most industrialized countries, but the nature of jobs is changing. Average annual employment growth between 1973 and 1988 was well over two percent for Canada (Exhibit 6.15) and less than one percent for most other industrialized countries.

6.87 It should be noted, however, that while Canada's long-term employment growth record has been impressive, jobs have become less stable. The Economic Council of Canada estimated that 44 percent of Canada's employment growth in the 1980s was accounted for by temporary or unstable jobs.

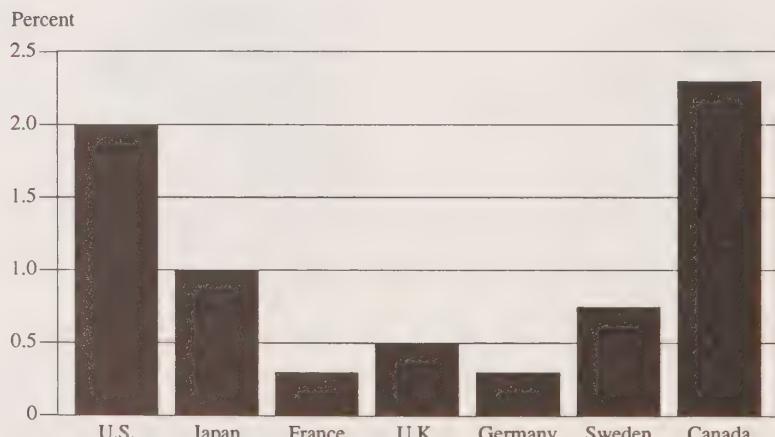
6.88 Multi-earner families are now the norm. By 1989, about 70 percent of Unemployment Insurance claimants belonged to families with two or more earners (Exhibit 6.16). Thus, while general employment conditions may have worsened, the impact of unemployment on

Exhibit 6.15

Average Annual Employment Growth

Canada Versus Other Industrialized Countries
1970–1990

Source: OECD Economic Surveys, 1990-91



most families will not necessarily be as severe as in past periods of high unemployment. Single-earner families, in contrast, will continue to face severe difficulties when job loss occurs.

6.89 There is a strongly entrenched problem of regional disparities in unemployment. Persistent regional unemployment disparities can indicate a structural problem in the economy, involving among other factors a geographical mismatch between labour demand and supply.

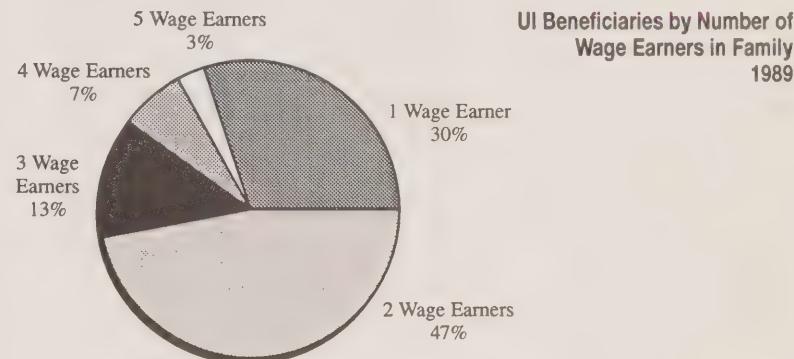
6.90 A comparison of regional unemployment rates against the national average for Canada at the peak of the business cycle, when labour demand is strong (Exhibit 6.17), shows no overall improvement in regional disparities. In some cases, disparities have worsened.

6.91 Workers from abroad meet a significant proportion of labour needs in growth regions. As a percentage of employment growth, immigrants arriving in Canada between 1986 and 1991 amounted to 38 percent of the increase in

employment in Ontario during this period. In British Columbia, the other major employment growth area, the figure was nearly 18 percent (Exhibit 6.18).

6.92 The extent of the dependence on workers from abroad in growth areas raises questions about the geographical mobility of Canadian workers. It also raises questions about the possible influence of the Immigration Program on where firms locate. The shortage of jobs

Exhibit 6.16



Source: Human Resources Development Canada

Exhibit 6.17



Source: Statistics Canada

in higher unemployment regions affects the need for social programs.

6.93 The trend toward increased unemployment has occurred even when job vacancies were more plentiful. This trend has existed for some time (see Exhibit 6.19). The 1991 Organisation for Economic Co-operation and Development (OECD) Economic Survey of Canada indicated a basic doubling of the unemployment rate between the 1960s and the late 1980s for a given rate of job openings generated by the economy. In the mid-1960s the job vacancy rate was accompanied by an unemployment rate of less than four percent. By the late 1980s, essentially the same vacancy rate co-existed with an unemployment rate of over eight percent, suggesting the possibility of a labour supply adjustment problem.

6.94 The central question is, "Why would job vacancies go unfilled while unemployed workers are available?" As we noted in paragraph 6.85, there is clear evidence of a long-term trend toward increased unemployment in the economy. Several factors are likely to be involved, including the effect of structural changes in the economy. Another possible reason

is that the levels of income support provided by the social programs, (see paragraph 6.96) may be generating work disincentives and causing a form of voluntary unemployment. This would contribute to the growing unemployment trend and the eight percent unemployment figure cited above.

6.95 With voluntary unemployment, even if jobs were available, workers would prefer the benefits of the social safety net. Where significant levels of job vacancies and unemployment co-exist, this can constrain economic growth. Further, it can greatly increase the burden on social program expenditures.

6.96 The Department of Finance, in its January 1994 report on *Canada's Economic Challenges*, concluded that the system of Unemployment Insurance in Canada is, considerably more generous than the safety net for workers in the United States and the average for other advanced industrialized countries. Exhibit 6.20 compares the levels of income support for unemployed workers in the G-7 countries. These levels of income support involve coverage and accessibility as well as levels of payments. The Department of Finance links the issue of generosity to the problem of work disincentives. While the level of support of the Canadian UI system has been reduced as a result of program changes since 1990, it still remains an important area of concern.

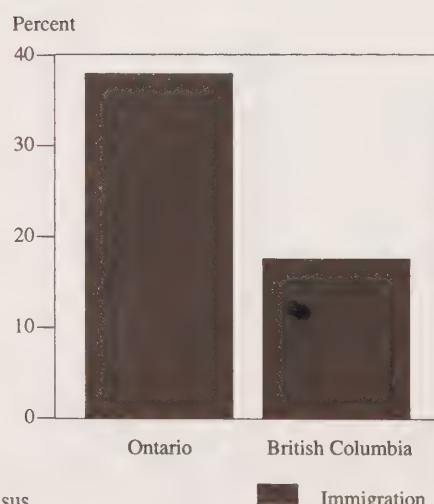
6.97 Growth in per capita wage income has slowed and earnings disparities are widening. In Canada, average wage income grew significantly until the early 1970s. In the 1980s, there was very little overall improvement in wages (Exhibit 6.21).

6.98 At the same time, income disparities widened. However, this was offset to a considerable extent by total

Exhibit 6.18

Percentage of Immigrants Finding Employment to the Total Employment Growth 1986-1991

Selected Provinces



Source: Statistics Canada 1991 Census

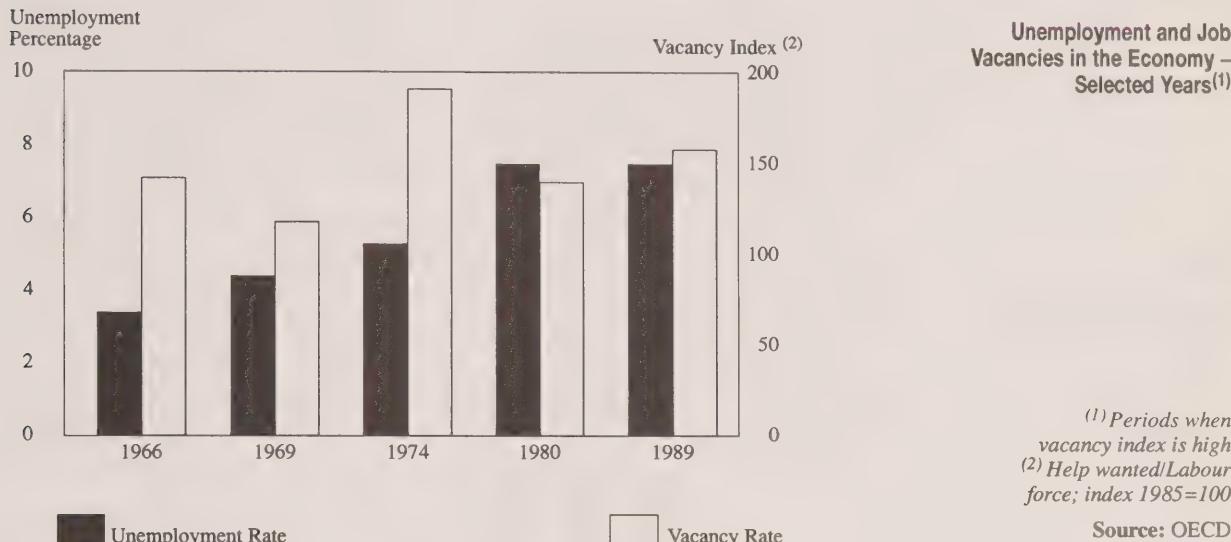
government transfer payments (Exhibit 6.22).

6.99 Government income transfers are now more important in maintaining income levels. The effect of income

transfers on individual income categories is shown in Exhibit 6.23.

6.100 The role of government income transfers in maintaining income levels has grown from 1981 onward. Except in the lowest 20 percent income group, where

Exhibit 6.19

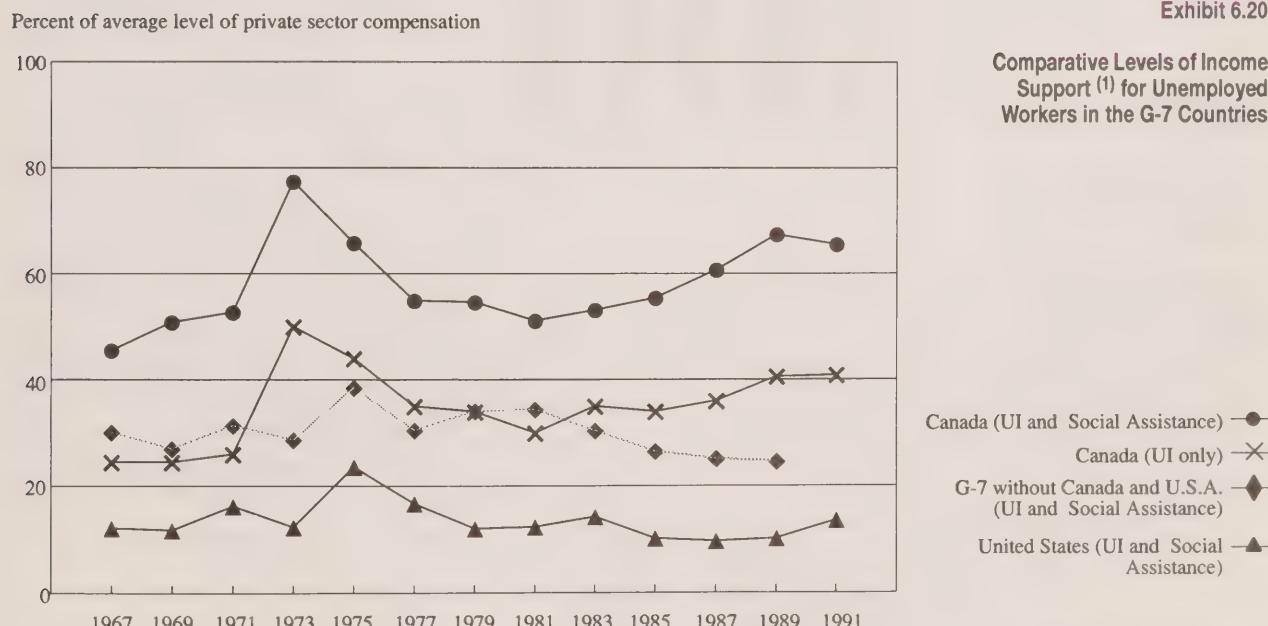


Unemployment and Job Vacancies in the Economy – Selected Years⁽¹⁾

⁽¹⁾ Periods when vacancy index is high
⁽²⁾ Help wanted/Labour force; index 1985=100

Source: OECD

Exhibit 6.20



Comparative Levels of Income Support⁽¹⁾ for Unemployed Workers in the G-7 Countries

⁽¹⁾ Based on total expenditures of Unemployment Insurance and social assistance per capita unemployed as a percentage of the average level of private sector compensation in each country

Source: Based on data and methodology developed by the Department of Finance, *Canada's Economic Challenges, 1994*

transfer payments were already the predominant income source, support from income transfer programs has more than doubled since the early 1970s. This raises questions about the appropriateness of universality instead of targeting and about the levels of support of the various income transfer programs.

6.101 We were unable to locate comprehensive information on the extent of "tax-back" of income transfers for the income categories shown in Exhibit 6.23. Such information would be important in identifying more clearly the net effect of

the income transfer programs and in assessing whether they were being delivered in the most cost-effective way.

6.102 In summary, the picture that emerges from our examination of prevailing socio-economic trends is one of significant industrial adjustment in the economy, involving an equally significant need for labour force adjustment and adaptation. This economic adjustment coincides with a significant lessening of growth in wage income and an increased importance of government income transfers across all income groups.

6.103 Information on the growth in such income transfers, combined with international comparisons of levels of support provided through unemployment insurance, raises important questions about the cost-effectiveness of targeting, about work disincentives, and about the relative generosity of programs.

6.104 In this context, we now turn to information available on the actual results individual social programs are achieving vis-à-vis the objectives involved.

Information on Program Results

6.105 Information relevant to the results of government programs can come from a variety of sources. In this section, we examine information from major available sources that raise important value-for-money issues about program expenditures.

6.106 Federal departments are required, under Treasury Board policy, to undertake periodic evaluations of their programs, "where material and cost-effective to do so".

6.107 Government departments collect assorted ongoing data on their programs, some of which may give a partial

Exhibit 6.21

Real Average Annual Wage Income for Both Sexes in Canada 1950–1990

Source: Statistics Canada (75-001)

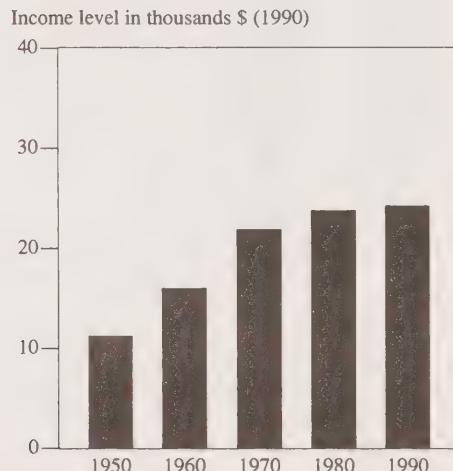
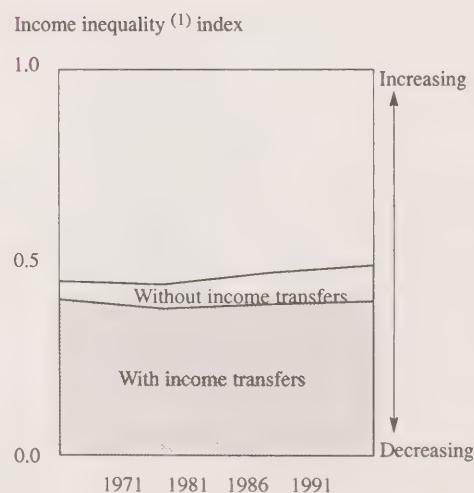


Exhibit 6.22

Income Inequality With and Without Income Transfer Programs 1971–1991

(1) Summary measure of income distribution that ranges from 0 when all incomes are equal, to 1 when all incomes are concentrated in the hands of one person or group

Sources: Statistics Canada; Podoluk (1968); Vaillancourt (1985) (1994)



perspective on program results. These, and outside data such as Statistics Canada surveys, are sometimes examined in wider program reviews by departments.

6.108 Researchers also periodically undertake technical studies of general program effects. Furthermore, commissions of inquiry have analyzed some aspects of programs. International institutions such as the Organisation for Economic Co-operation and Development and the International Monetary Fund carry out studies touching on program performance of member countries, including Canada, as part of wider country reviews or as part of comparative analyses between countries.

6.109 With all these sources, it is possible to obtain some perspective on the results achieved by federal social programs over the years.

6.110 However, as will be shown, the perspective is a very partial one in some respects. One of our major findings identifies information gaps on existing

programs, which need to be considered in the context of the Social Security Review.

Program Activities Reviewed

6.111 For the present study, we focussed on programs in three key social policy areas, to learn what information is available on results:

- Unemployment Insurance.
- Social assistance (welfare) programs supported by the federal government through the Canada Assistance Plan.
- Worker training: for UI claimants and social assistance recipients (SARs).

6.112 In aggregate, these three areas accounted for more than \$26 billion in federal program expenditures in 1993–94. Programs accounting for such a high expenditure clearly have the potential to produce a significant impact, both on the target populations and on the economy as a whole.

6.113 The program activities are key components of the federal government's social safety net, with a strong focus on

Exhibit 6.23

Total Government Income Transfers by Income Level as a Share of Incomes in Canada 1961–1992

Year	INCOME GROUPS					
	All Income Groups	Lowest 20% Income Group	Second-lowest Income Group	Mid-20% Income Group	Second-highest Income Group	Highest 20% Income Group
1961	7.0	45.7	14.5	6.3	4.4	2.8
1971	6.6	53.3	18.2	5.7	3.4	2.0
1981	9.0	57.3	22.7	8.8	5.0	2.6
1986	11.5	60.2	32.2	13.1	6.8	3.3
1991	13.4	63.4	36.9	16.3	8.9	4.0
1992	14.0	66.8	38.2	17.6	9.3	4.0

Sources: Statistics Canada; Podoluk (1968); Vaillancourt (1985) (1994)

members of the working-age population and their dependants.

Recent Program Evaluation Reports

6.114 As we noted in Chapter 8 of our 1993 Report, program evaluation conducted by government departments is particularly important because it involves "a disciplined assessment of government programs and activities." It is based on an independent, systematic measurement and analysis, carried out to meet expectations set out in policy statements and standards, and publicly reported. That is, it is intended to be available in the public domain and to contribute to an informed public debate on the results achieved by government programs.

6.115 Program evaluation has been recognized in government policy over the years as a key form of results measurement. The deputy heads of departments are accountable for the planning, conduct and reporting of program evaluation studies.

6.116 As outlined below, the Department of Human Resources Development made available to us

program evaluation reports examining program effects in three of the four program areas. The Department also provided us with a pre-evaluation assessment report for Unemployment Insurance regular benefits.

6.117 With respect to Unemployment Insurance, we noted in our 1993 Report that this area had received only limited evaluation coverage to date.

6.118 In its pre-evaluation assessment of Unemployment Insurance regular benefits, the Department acknowledged that this important program component had not been evaluated previously, although it is the federal government's largest labour market adjustment program, and despite the revived concern over the persistent and dramatic growth of the expenditures in past years.

6.119 The Department is at present in the process of completing a major evaluation of the impacts and effects of regular UI benefits on the clientele and on the economy as a whole. Some preliminary information on the findings can be drawn from a series of studies examining such program effects. Other studies are planned for this fall and for 1995. Such information can contribute to

Report Title	Date	Status
Evaluation of the Canada Assistance Plan	1991	Final Report
Pre-Evaluation assessment of the Unemployment Insurance Regular Benefits Program	1992	Draft Report
An Evaluation of UI-Sponsored Training	1993	Draft Report
Evaluation of Employability Initiatives for Social Assistance Recipients	1993	Draft Report

the current review of Canada's social security system. It is important that information from program evaluation studies be made available to Parliament when major decisions are being taken. We encourage the Department of Human Resources Development to continue its evaluation activities as planned.

6.120 While the present evaluation work is a positive development, its timing may be regarded in some ways as "bolting the stable door after the horse has gone". This is particularly true in view of the significant questions raised over the years about possible negative effects from Unemployment Insurance, its size and its costs. These are discussed in paragraphs 6.184 to 6.200. Earlier program reviews, including two major commissions of inquiry, could have benefited from the availability of results measurement information.

Intended Effects

6.121 Exhibit 6.24 provides a summary of the basic activities under the three federal programs, and their intended effects. As the exhibit indicates, the programs as a group have both economic and social objectives.

6.122 In the case of Unemployment Insurance, the objectives include the redeployment of unemployed workers (through income support, counselling, job search and training assistance) and the provision of a social safety net (financial assistance) for the jobless. However, as discussed below, the scope of Canada's UI Program has not been well defined. This is evidenced by the fact that observers have different views of its role. Many critics of the program insist that its proper role is a particular form of insurance, while others see it as a vehicle for income redistribution.

6.123 In the case of the Canada Assistance Plan and training for social assistance recipients (SARs), the objectives are more straightforward. CAP's focus is on income support "as a measure of last resort" provided through provincial welfare systems: clearly a social objective. For SAR training, the principal intended effect is to increase employability and reduce dependence on government assistance.

6.124 **The UI Program lacks clear objectives.** In keeping with enabling legislation in general, Parliament has set out the purpose of the Unemployment Insurance Program in broad terms. This broad statement of intent should be translated, to the greatest extent possible, into clear, consistent and measurable objectives as the basis for program design, management and accountability. This has not been done adequately, as evidenced by the various statements related to UI objectives (Exhibit 6.25).

6.125 The most recent description of the objectives for UI is:

"to promote economic growth and flexibility by providing temporary income support to unemployed workers who qualify for benefits under the UI Act without placing an unnecessary burden on individuals, groups or regions."

6.126 The term "unnecessary burden" is open to several interpretations. Consequently, the intended balance between economic growth and social income redistribution is not clear.

6.127 Similarly, the intended meaning of the expressions "economic growth" and "flexibility" is not clear in UI's function either as an insurance program or as a social income redistribution measure. The absence of well-structured and well-defined objectives is evidenced by the fact that UI has "branched out" over

the years to areas such as sickness benefits, maternity and parental leave, and special provisions for self-employed workers in the fishing industry. Similar questions must be asked about “developmental uses” of UI, where training represents the largest share but which also include direct job creation, self-employment and work-sharing expenditures.

6.128 This is not to say that such activities are not legitimate. However, accountability for public funds requires that the program objectives be clearly defined and the scope of the activities be clearly identified.

6.129 The situation is further confused by the fact that there is no single, consistent government statement of

Exhibit 6.24

Program Objectives and Potential Positive Effects

	Program		
	Unemployment Insurance – Regular Benefits	Canada Assistance Plan	Worker Training
Objectives	To promote an economy capable of growth and flexibility without undue burden on individuals, groups or regions, through the provision of temporary income support to qualified workers.	To encourage, through cost sharing of provincial expenditures, the development of a more comprehensive and integrated welfare system in Canada to: <ul style="list-style-type: none"> assist all persons in need; encourage the further development and expansion of provincial welfare services. 	To improve the employability and earnings of workers referred for training.
Potential Positive Effects	<i>Labour Market Adjustment</i> <ul style="list-style-type: none"> Worker redeployment Improved job search/job match Increased acceptance of industrial adjustment <i>Income Redistribution/Social Equity</i> <ul style="list-style-type: none"> Reduced financial burden on those affected by economic downsizing Inter-regional financial transfers <i>Economic Stabilization for the National Economy</i>	<ul style="list-style-type: none"> Income support for needy individuals with inadequate alternative means of financial support (i.e. needs-tested) Increased/improved support 	<ul style="list-style-type: none"> Increased worker employment after training Improved wages Improved labour response to economy's needs
Program Expenditures	(1993 regular benefits) \$14.3 billion	(1992–93) \$6.7 billion	UI (1992–93) \$950.6 million SARs (1990–91) \$295.7 million
Program Participants	(Regular benefits only) 2.6 million persons	Social assistance recipients (SARs): 3.1 million persons Welfare Services: 1.1 million persons	UI Training: 297,800 persons SARs: 31,727 persons

Sources: Human Resources Development, 1993, and Health and Welfare Canada, 1991

program objectives for Unemployment Insurance. Instead, as indicated in Exhibit 6.25, authoritative documents offer different views of what is expected from the program. Moreover, each of these sources — Part III of the Estimates, a commission of inquiry, departmental review documents and the like — is authoritative in its own right. In short, the objectives for UI vary, depending on where one looks. Further, as the exhibit indicates, in the Department's annual report — an area where it might be expected that the objectives of UI would

be clearly and consistently stated — there was no statement at all of the program's objectives.

6.130 Why is the lack of clear objectives for the Unemployment Insurance Program so important? There are several reasons.

6.131 First, the size of the overall program budget, which has ranged up to more than \$19 billion in recent years, means that large sums of public money are being collected and distributed through the program. Contributors are entitled to

Exhibit 6.25

Selected Statements of UI Objectives and Sources

Source	Statement
Part III Main Estimates 1994–95	<ul style="list-style-type: none"> The UI program is a compulsory and contributory social insurance program that provides temporary income replacement to unemployed workers who are seeking work, or pursuing training, or who are unable to work because of sickness, disability or care of newborn or newly adopted children.
Part III Main Estimates 1994–95	<ul style="list-style-type: none"> The objective of the UI activity is to promote economic growth and flexibility by providing temporary income support to unemployed workers who qualify for benefits under the UI Act, without placing an unnecessary burden on individuals, groups or regions.
Part III Main Estimates 1993–94	<ul style="list-style-type: none"> The objective of UI is to promote an economy capable of growth and adaptation without undue burden for individuals, groups or regions, through the provision of temporary income support to qualified workers.
Commission of Inquiry on Unemployment Insurance (1986)	<ul style="list-style-type: none"> Unemployment Insurance is a national program with two objectives: <ol style="list-style-type: none"> to provide income protection for workers suffering temporary income interruptions; and to facilitate the best possible match between unemployed workers and available jobs.
EIC Task Force on Unemployment Insurance (1981)	<ul style="list-style-type: none"> Although it is not an explicit UI objective, income redistribution is considered a positive effect of the program brought about by the way it pools the costs of unemployment.
Department's Annual Reports	<ul style="list-style-type: none"> The Department's Annual Reports for 1991–92 and 1992–93 do not contain any statement of objectives for UI while describing how UI funds have been spent.

have a clear statement of what the money is intended for and actually used for, and what results have been achieved.

6.132 Further, if clear objectives have not been formulated and communicated by senior management, there is a high risk that general governance and operational management will be impaired. This is so since there cannot then be a coherent focus on what the program is specifically trying to achieve in relation to Parliament's stated intentions when it passed enabling legislation.

6.133 As a result, program managers, parliamentarians, clients and other stakeholders will likely have different perceptions of what the program is trying to do. Cost-effectiveness will likely be reduced, since it is difficult to be clear on intended results and to take whatever corrective action may be necessary. It also becomes more difficult to hold government accountable for results.

6.134 When the absence of clear objectives is combined with the absence of any comprehensive feedback on results

achieved for moneys spent, the spectacle emerges of a major program that has been functioning for some time without adequate accountability.

6.135 Most observers recognize that UI cannot operate entirely the way a private sector insurance scheme would. However, it is necessary that it function within a clearly identified framework of consistent objectives. We acknowledge the difficulty of setting clear objectives and recognize that, in some cases, there will be conflict between them. When this is the case, the obligation to be transparent and to measure the results achieved is all the greater. In addition, because of the complexity of the program, Parliament may wish to indicate more precisely in future legislation what its intent is with respect to the program's objectives.

Positive Effects of the Programs

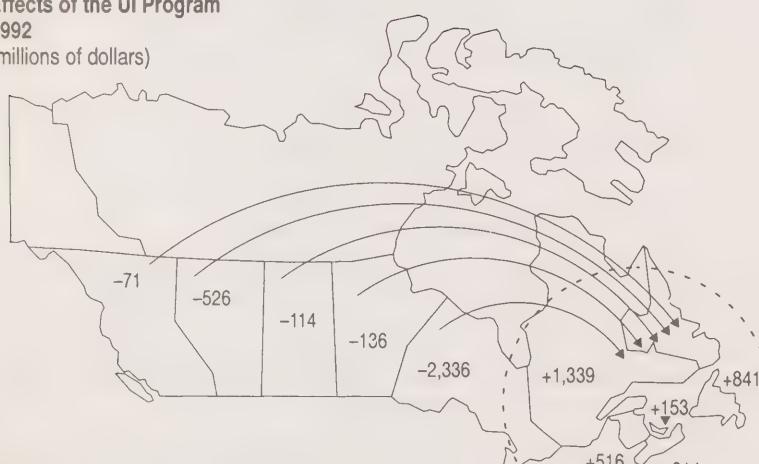
6.136 Positive effects have been achieved through the existing federal social programs but there is room for improvement. Studies evaluating individual federal safety net measures indicate that the programs have had several positive results with respect to income transfer. Some economic benefits may have been achieved, but there are significant gaps in the information available. We discuss in this section the information that is available on the effects of Unemployment Insurance, the Canada Assistance Plan and training.

Unemployment Insurance

6.137 Unemployment Insurance does have an established track record in providing financial support. The UI Program covers the majority of the labour force with the exception of certain part-time workers and the self-employed. UI is delivered in conjunction with job placement, counselling and worker redeployment activities through a large

Exhibit 6.26

Interprovincial Redistributive Effects of the UI Program
1992
(millions of dollars)



Source: Human Resources Development Canada

Figures are approximate

network of Canada Employment Centres. After a waiting period of two weeks, regular, computerized payment of UI benefit cheques occurs automatically for approved claims, subject to demonstrable efforts by workers to find employment. However, the two-week waiting period can be a hardship. A departmental evaluation study implies that, in some years, possibly as many as 75,000 claimants may be applying for interim welfare assistance.

6.138 UI has in place a series of control measures to detect and deter abuse.

Evaluation studies by the former Department of Employment and Immigration in the late 1980s indicated that the controls have generated program savings. However, the issue remains on whether, overall, the most cost-effective approach for an unemployment insurance system is with features that include ease of accessibility (see paragraph 6.96) combined with a range of administrative controls and increased complexity to prevent abuse.

6.139 The need for recourse to provincial welfare systems and the complexity of program delivery require further attention by the Department so that operational effectiveness can be improved and value-for-money results strengthened.

6.140 Program data indicate that UI has functioned well as an income transfer mechanism related to regional disparities in unemployment. An important effect of UI is a significant degree of income redistribution across provinces. Exhibit 6.26 illustrates the interprovincial distributive effects of UI, confirming that it is an important instrument of income transfer to provinces with higher unemployment and slower employment growth. In 1992, approximately \$3.2 billion was transferred in this fashion. Historically, a

major share of the transfers has gone from Ontario and the western provinces to Quebec and the Atlantic provinces. This trend arises from both the differences in incidence of unemployment across provinces and the important design feature of the program that results in a uniform premium regardless of province of residence.

6.141 However, the program may be much less effective as a redistribution mechanism among income groups. For example, a departmental analysis indicates that, in 1990, only 7 percent of total UI benefits were paid to families with less than \$15,000 annual income, while about 50 percent of the benefits went to families with annual incomes greater than \$40,000 and over 33 percent to families with incomes greater than \$50,000.

6.142 The above analysis does not provide information on premium revenues compared with program expenditures by family income group. This, along with information on the more general income tax provisions, would allow development of a perspective on the net income redistribution effect of the program. There is also evidence from a departmental evaluation study that the introduction of more restrictive UI provisions has further reduced the income redistribution role of the program.

6.143 It is as an economic stabilizer that UI appears to have had its greatest positive impact on the economy. A departmental evaluation study concludes that net UI spending has a significant effect on reducing the employment impact of an economic slowdown. This is especially true of UI benefit payments but less so with respect to UI premiums. The evaluation points out that the premium rate has moved "pro-cyclically"; that is, the rate tends to be raised in downturns.

6.144 The study concludes that premium rate increases, which have occurred during economic downturns, have reduced the program's potential for economic stabilization. However, if the federal government were to keep these premium rates constant, it would incur higher deficits and have to bear the cost of financing them. This is further discussed in paragraphs 6.239 to 6.243.

6.145 The study's estimate of the average stabilizing effect of UI is about 10 to 12 percent. This means that the UI Program has prevented about 10 to 12 percent of the decline in output that would otherwise have occurred at the lowest point of a cyclical downturn. In employment terms, this translates into 11 to 14 percent of job losses being averted through the income maintenance provisions of the program. A parallel study commissioned by the Department arrives at a similar basic conclusion.

6.146 While UI income support can help workers find more suitable jobs, the extent of the effect is *not large*. A preliminary departmental study on intensity of job search by the unemployed concludes that the availability of UI can help workers engage in a more productive job search, resulting in a better match between labour demand and supply.

6.147 The study estimates that, with this improved matching, UI claimants' wages increased as much as seven to nine percent. However, it concludes that these benefits may not exceed the additional costs of claimants remaining on longer UI claim periods to find a more suitable job.

Canada Assistance Plan

6.148 The evaluation of the Canada Assistance Plan shows several positive results. The 1991 evaluation of the Canada Assistance Plan (CAP) by the

former Department of Health and Welfare provided full coverage of evaluation issues in the context of a federal transfer program. The evaluation concluded that the program had succeeded in directing federal moneys to persons in need, by means of joint funding with the provinces. Such assistance offers a last resort for those in need.

6.149 The evaluation found that disparities in provincial social assistance levels have been reduced since CAP was introduced. The evaluation also noted that, in some provinces and particularly the poorer ones, authorities claimed that social services would not have developed as rapidly without CAP support.

6.150 However, there is a significant need for more information on the programs that CAP supports. What are the characteristics of those being assisted, such as age, sex, family status, education and previous job experiences? Why do individuals require assistance; how often; for how long? What programs have proved the most or least effective in reducing reliance on welfare? Improved information on the causes, extent and effects of poverty and the impact of existing programs is necessary to evaluate the impact of federal cost sharing on Canada's safety net programs. Information on the overall effects in redistributing income to benefit needy Canadians is not available.

6.151 While the federal government shares the financing, the provinces are responsible for the design and administration of social assistance in their respective jurisdictions. The flexibility of CAP when combined with regional diversity has resulted in a unique welfare system in each of the 12 jurisdictions (the 10 provinces and two territories) in Canada. Understandably, federal-provincial program definitions are

not harmonized and categories of recipients and beneficiaries are not always consistent between provinces. As a result, the data received from provinces are fragmented and difficult to roll up on a national basis.

6.152 The problem is further exacerbated by federal government decisions that have a direct impact on provincial welfare systems. Following the “cap on CAP” announced in 1990, the three provinces concerned (Ontario, Alberta and British Columbia) no longer provide information to the federal government once they reach their maximum level of funding. Also, recent cuts to the Unemployment Insurance program could result in increased provincial welfare rolls but the two levels of government do not agree on the extent of this consequence. Such recent events have made provincial governments reluctant to provide more information on their welfare program activities.

6.153 The lack of information about social programs funded by CAP has existed since its inception. The complexity of federal-provincial relations, combined with the problems of aggregating data from various sources, makes obtaining information on program results difficult at all levels. However, as we have pointed out in previous reports, we urge the federal government to work with the provinces on this long-standing issue.

6.154 The fundamental question that needs to be answered is what is being achieved with the funds actually spent. This includes the resources the federal government spends annually on CAP (\$7.2 billion in 1993–94). In our opinion, feedback information of this type is essential before decisions are made on redesigning safety net programs. The absence of such information means that

Parliament cannot assess the appropriateness of the program’s targeting through provincial welfare systems or the degree to which the assistance promotes dependence among welfare clients. Such issues are further considered below, in the context of training initiatives for social assistance recipients.

Training

6.155 **Training programs for UI claimants can be effective in increasing earnings and employability.** Based on a departmental study that measures training results, a clear case can be made that skills upgrading can facilitate worker redeployment and increase earnings. However, the study also contains information indicating that value for money is not being optimized in the case of federal training assistance for UI claimants.

6.156 On the positive side, while both trainees and workers who had not received assistance were equally likely to find jobs, trainees on average required 11 to 17 fewer weeks than did their non-trainee counterparts to find employment. Individual earning gains for trainees reached more than \$6,000 a year for some groups.

6.157 However, results varied greatly by type of training. In certain cases, trainees registered a modest but significant rise in applications for welfare assistance, compared with the experience of non-trainees. In other words, they were, if anything, *worse off* than similar workers who had not had government-sponsored skill development assistance. The reasons for this are not clear at present.

6.158 **Training for social assistance recipients (SARs) can produce positive results.** The available information indicates that SARs enjoyed substantial

gains in both earnings and employability after undertaking training. They exhibited reduced dependence on social assistance, an increase in weeks employed and greater labour force attachment. However, there was also a subsequent increase in the use of Unemployment Insurance at the end of SARs' employment spells, as a result of greater UI eligibility and assistance from employment gains and wages.

6.159 Increased employment of SARs, when it leads to increased use of Unemployment Insurance, will involve a transfer from one income support program to another. The Department claims that the program showed a net benefit for the national economy. It is not clear, however, to what extent the newly trained workers displace others from employment or push them into the social safety net. This should be investigated by the Department.

6.160 Cost-effectiveness of resource distribution needs study. There is a need to reassess the present resource distribution between "passive" labour market measures such as income support

and "active" measures such as training and other types of worker redeployment programs.

6.161 Data on seven leading industrial countries, prepared by the Organisation for Economic Co-operation and Development, show that Canada's expenditure on unemployment compensation, which amounted to nearly 2.3 percent of its Gross Domestic Product in 1992, was second only to Sweden's. Even when differences in unemployment rates are taken into account, Canadian expenditure on unemployment compensation remains high in comparison with that of countries such as the United States, Japan, France and the United Kingdom (Exhibit 6.27).

6.162 In contrast, the Canadian percentage of Gross Domestic Product spent on "active" labour market measures such as training is more in line with the mainstream of advanced industrialized countries (Exhibit 6.28).

6.163 Overall, Canada has the lowest ratio of expenditures on active to passive measures. As indicated earlier, available information on the UI Program's positive

Exhibit 6.27

Expenditure on Unemployment Compensation as a Percentage of the Gross Domestic Product versus National Unemployment Rate

	Canada 1992-93	France 1991	Germany 1992	Japan 1990-91	Sweden 1992-93	U.K. 1992-93	U.S. 1991-92
Unemployment Compensation	2.28	1.46	1.32	0.32	2.71	1.69	0.58
Standardized Unemployment Rate	11.20	10.20	4.80*	2.20	4.80	9.90	7.30

* West Germany only

Source: *Employment Outlook*, OECD, 1993

effects underlines the limited effectiveness of passive income assistance alone in enhancing the redeployment of workers to other jobs. This raises an important value-for-money question about levels of expenditure on passive income support under UI.

Negative Effects of the Programs

6.164 There is inadequate information on possible negative effects from the social programs. In addition to positive results, there is evidence that the programs may have significant negative effects in relation to achieving the programs' objectives and intended results. Further clarification and measurement of such effects by the Department should be a high priority.

6.165 Negative effects raise important value-for-money issues because they can undermine or counteract positive results produced by the programs, increase

program costs, and decrease program effectiveness.

6.166 Our assessment, based on the limited information available, is that there may be possible negative effects from federal social programs in the following areas:

- chronic dependence on government programs;
- built-in work disincentives for clients in the welfare system;
- increased worker layoffs by employers as a result of UI;
- the social programs may be causing increased unemployment levels; and
- where UI-induced unemployment occurs, there may be significant costs beyond a waste of program resources.

6.167 As early as 1981, a major study undertaken by the government, *Unemployment Insurance in the 1980s*, acknowledged that the UI Program might

Exhibit 6.28

Unemployment Compensation Active Measures versus Passive Measures as a Percentage of the Gross Domestic Product

	Canada 1992–93	France 1991	Germany 1992	Japan 1990–91	Sweden 1992–93	U.K. 1992–93	U.S. 1991–92
Active Measures % of GDP	0.68	0.88	1.64	0.13	3.21	0.59	0.25
Passive Measures % of GDP	2.28	1.94	1.81	0.32	2.78	1.69	0.58
Ratio Active/Passive % of GDP	0.30	0.45	0.91	0.41	1.15	0.35	0.43

Active labour market measures relate to government programs such as labour market training, public employment and measures to make the disabled more self-reliant.

Passive measures relate to income support only.

Source: OECD

be exerting an unwanted influence on Canada's national unemployment rate. The Royal Commission on the Economic Union and Development Prospects for Canada (the Macdonald Commission) concluded in 1985 that certain UI provisions affected the incentive structure and adjustment mechanism of the labour market.

6.168 Chronic dependence on government programs. Recent evidence raises concern that there is an extensive and growing dependence on government social programs.

6.169 While use of social programs naturally increases during economic slowdowns, the programs do not return entirely to earlier levels when economic and employment growth recovers. Rather, the programs continue to operate at higher levels that become the new "floor" for subsequent activities (Exhibit 6.29).

6.170 The extensive repeated use of UI has led some observers to characterize a

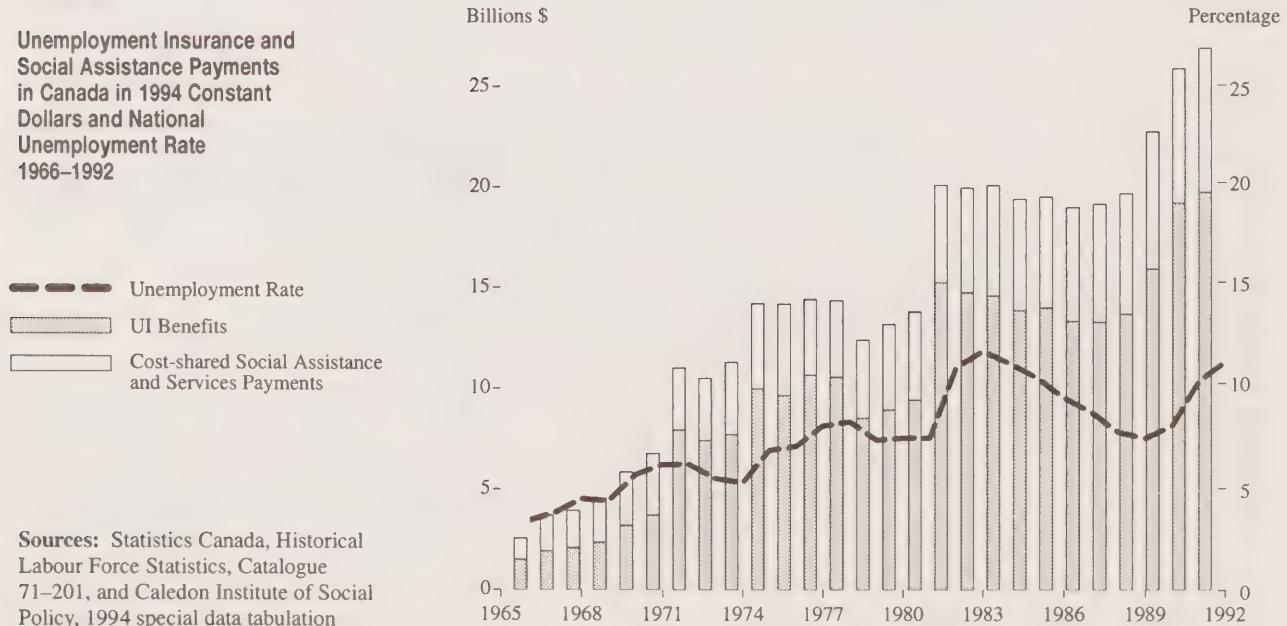
significant part of the assistance as a form of regular income supplement.

Departmental information on program "repeaters" for 1991 indicates that some 1.3 million regular claimants (about half) had used UI at least one additional time in the previous two years. One-third of regular claimants had at least three other claims in the preceding seven years. On the basis of these figures alone, it must be expected that the costs arising from program dependence are considerable.

6.171 A departmental evaluation study confirms the trend of increased program use indicated by the data. The study concludes that a "first time exposure to UI permanently increases the probability of receiving UI again in the future." The study's results indicate that the first use of UI increases the probability of future use by 12 percent for older workers and 6 percent for younger workers.

6.172 Built-in work disincentives for clients in the welfare system. Back in the 1960s, most people on assistance were

Exhibit 6.29



aged people and persons with disabilities who were not at that time expected to earn income through employment. Since the 1980s, problems related to disincentives to work have started to emerge, with an increasing number of employable individuals claiming welfare.

6.173 Every province has a set of guidelines known as "earning exemptions". These are the amounts that welfare recipients may earn without any reduction to their welfare assistance. Earnings from employment that exceed designated levels typically reduce welfare benefits, dollar for dollar. Welfare recipients are allowed to keep only a small portion of the earnings; the net gain from working is minimal.

6.174 Furthermore, the earnings of welfare recipients are subject to income taxes and payroll taxes; welfare income in itself is not taxable. Thus, the combined effects of earning exemptions and taxation on earned income constitute a barrier to moving off welfare.

6.175 Social assistance recipients who enter or re-enter the labour market may lose access to income in kind, for example, health-related benefits, dental care, medication plans and assistance for work-related expenses. Although the value of income in kind is not known, it can be worth substantial amounts of money, especially for households with any form of special need, such as a medical or disabling condition.

6.176 According to a study by the Economic Council of Canada, a growing proportion of the new employment opportunities is in non-standard jobs (that is, work arrangements that differ from the traditional model of full-year, full-time employment). About 44 percent of all new jobs created between 1981 and 1989 were short-term or part-time jobs. This

type of employment represented about 28 percent of all jobs in 1989. Statistics Canada data show that part-time employment rose by 211,000 between 1990 and 1993, while full-time employment fell by 400,000, indicating that the trend observed in the 1980s is continuing in the 1990s.

6.177 Non-standard employment typically, although not always, offers low wages, few benefits and little security. According to the Economic Council study, the difference between government financial assistance provided to people in need and the income earned from jobs that are less than full-time may not be large enough to encourage some people to work; the extent of such a disincentive effect was not estimated. There is also a risk that any increase in income support levels may even encourage some low-wage earners to withdraw from the labour force (see paragraphs 6.214 to 6.217). More and better research on these issues is needed.

6.178 **Increased worker layoffs by employers as a result of UI.** From the individual employer's point of view, the wage bill and short-term production costs can be reduced by the use of a combination of temporary layoffs and recalls of workers eligible for Unemployment Insurance. The more generous the UI provisions, the greater the acceptability to workers of such layoffs as a response to a firm's business fluctuations. As noted above, the Economic Council of Canada has estimated that as many as 44 percent of the jobs created in the 1980s were unstable.

6.179 Preliminary information on UI Program effects, from departmental evaluation studies, gives a further perspective on the problem.

6.180 This information indicates that layoffs exceed the level of job quits as part of the movement of workers out of employment each month. In some cases, extensive repeated use of the UI Program has been occurring in association with the same group of employers; over 40 percent of workers with five or more UI claims had each been employed by three or fewer employers. This implies a significant layoff-recall pattern among certain employer groups.

6.181 Analysis sponsored by the Department also indicates that, when qualifying periods for UI are increased, it is employers who tend to adjust short-term employment periods to ensure UI eligibility before laying off workers. Thus, the adjustment to changing UI provisions involves employers as well as workers.

6.182 As indicated in paragraph 6.277, the use of UI varies significantly among industry sectors. This means that premium revenue from some sectors is used to finance heavier program use in others. This raises the issue of experience rating (discussed further in paragraphs 6.229 to 6.231). Moreover, such use of UI resources may cause certain sectors to retain too much labour, at the expense of contributors in other industry sectors.

6.183 From the available information, there are grounds for concern that the UI Program's provisions may be contributing to increased short-term job spells in the economy. This possible effect needs further examination by the Department.

6.184 The social programs may be causing increased unemployment levels. The two income transfer programs examined as part of our study raise concerns. In both Unemployment Insurance and the Canada Assistance Plan,

work disincentive effects may accompany the programs.

6.185 In the case of income transfers and other social assistance benefits supported through the Canada Assistance Plan, only very limited information is available (see paragraphs 6.148 to 6.154). It is not clear how extensive the work disincentive effects may be (see paragraphs 6.172 to 6.177). Yet, it is extremely important to have this information if value for money is to be obtained from scarce program resources.

6.186 In the case of the Unemployment Insurance Program, there is a clearer perspective. Here too, however, the information base is seriously incomplete.

6.187 There is at present no clear consensus on what the precise effects of UI are on overall unemployment in Canada.

6.188 However, the available evidence indicates that the UI Program's activities are accompanied by certain work disincentives and there is a significant risk that these may be increasing Canada's unemployment rate (Exhibit 6.30). The Department should clarify this matter as quickly as possible.

6.189 As noted, the 1981 study, *Unemployment Insurance in the 1980s*, identified concerns that the increased availability and level of support of UI after 1971 might have brought an upward shift in the unemployment rate, ranging from 0.5 to 1.3 percentage points.

6.190 Subsequent studies, most of which were undertaken outside government, produced a range of estimates; in some cases, they failed to find any effect, and in others, they estimated upward shifts in unemployment ranging up to two percentage points and beyond. Consequently, it is clear that this is a difficult area to measure.

6.191 The Organisation for Economic Co-operation and Development (OECD) concluded, in a 1991 study, that the provision and availability of UI in Canada had added two percentage points to the level of unemployment after the program changes of the 1970s.

6.192 Subsequent revisions to UI are likely to have lowered the level. However, given the continued generosity of Canada's UI system, compared with many in other advanced industrialized countries, and the longer-term trend for high frequency users to account for an increasing share of UI spells, the net effect of UI-induced unemployment is likely to remain significant. The program would thus have a structural effect on the labour market, through worker and employer behaviour in response to its provisions.

6.193 The UI Program is so large that even a relatively small induced unemployment effect can have significant cost implications. For example, adding a one-half percentage point to the unemployment rate through increased program use due to work disincentives could involve more than \$500 million in current program expenditures. This is an important, negative and unintended effect. The Department should ensure that its

assessment of the impact of UI on the unemployment rate is reported to Parliament and that the implications for program expenditures are identified.

6.194 Where UI-induced unemployment occurs, there may be significant costs beyond a waste of program resources. As discussed in the section on socio-economic trends, one striking characteristic of the changed environment has been the trend toward increased unemployment in the economy even when economic growth is occurring. While there are probably several factors involved, our examination has raised the issue of UI work disincentives generating voluntary unemployment. With voluntary unemployment, even if job openings were available, workers would prefer the benefits of the social safety net, and the level of unemployment in the economy would rise.

6.195 We have also noted that job vacancies in the economy appear to have been co-existing with much higher unemployment levels than in the past. OECD estimates for Canada indicate a basic doubling of the unemployment rate between the mid-1960s and the late 1980s occurring while the rate of job vacancies was basically similar during these periods.

1. Continuing high levels of expenditures of the Canadian UI Program relative to that of other countries (paragraph 6.161).
2. Incidence of repeating UI claimants (paragraph 6.170).
3. Reduced stability of employment (paragraph 6.178).
4. UI Exhaustees:

Range from 23 percent to 29 percent of claimants.

After exhausting their claims, over 50 percent of exhaustees found employment within a short time (2 months) in the 1988 to 1991 period.

5. Duration of claims among certain groups influenced by UI level of income support.
6. "High-frequency" users tend to account for an increasing share of UI spells (paragraph 6.192).

Exhibit 6.30

Risk Analysis, UI Work Disincentives and Canada's Unemployment Rate

Summary of Key Factors

6.196 Where significant levels of job openings and unemployment occur at the same time, it raises the issue that constraints to economic growth may be a result. The 1991 OECD analysis of vacancies and unemployment in the Canadian labour market demonstrates a growing long-term trend toward such conditions during periods of economic growth.

6.197 According to available benchmark information, if UI-induced unemployment constrained economic growth as a result of voluntary unemployment, increasing the unemployment rate by 0.5 percent, then the cost to the economy could involve up to \$7.5 billion in lost output — a very high cost indeed. This is not a pressing issue in present economic conditions. However, it is still important to identify as fully as possible any effects from the program in this respect.

6.198 A 0.5 percentage point level of UI-induced unemployment would not necessarily have this full effect since, in some cases, UI may be inducing people who would not otherwise be participating in the labour force to register as unemployed. Also, in the case of UI clients, there may be further factors (such as the occupational skills and industry sectors involved) that will reduce the impact of the loss of production.

6.199 However, our analysis offers strong evidence (paragraphs 6.189 to 6.193) that a loss-of-production effect in the Canadian economy should be a source of concern. The actual impact should be examined and measured by the Department as part of its program evaluation efforts.

6.200 In our opinion, such possible negative effects should have been investigated and measured years ago, for

reasons of sound governance and to fulfil the requirement for accountability to Parliament for moneys voted.

Inter-program Linkage

6.201 Social programs, as described earlier in this chapter, are often grouped and described in terms of a safety net. This suggests that the various component programs do not operate in isolation from one another. Along with direct program effects, there are additional effects to be considered, which result from inter-program linkage.

6.202 Program linkage can, at times, expand or compound particular program effects on the economy or the clientele. Programs can be designed to complement each other to produce jointly intended program results. In other instances, program interactions can work at cross-purposes and detract from the achievement of program objectives.

6.203 We examined the limited available information on inter-program linkage and its effects. Exhibit 6.31 assesses some possible key program links. The most important findings are summarized below.

6.204 There is evidence that, in some contexts, welfare claimants move between welfare and UI. A significant proportion of welfare recipients have also received Unemployment Insurance. Statistics Canada's *Labour Market Activity Survey* indicates that approximately 32 percent of people in Canada's working-age population who received welfare sometime between 1988 and 1990 also received Unemployment Insurance. This group made up roughly nine percent of UI claimants during the same period. The implication from this is that any changes to the provisions of the

UI Program are likely to have an impact on provincial welfare systems.

6.205 A preliminary report of a departmental evaluation covering 1993 indicates that, in the first five months following job separation, nearly six percent of UI claimants also received social assistance. However, in over half the cases, welfare assistance was claimed for a two-week period while claimants waited for UI benefits.

6.206 As a measure of last resort, it would be expected that, in the case of the long-term unemployed, workers exhausting UI would then move to welfare, where eligible. What the departmental evaluation shows is that a significant number of UI claimants ask for

welfare prior to receiving UI, because of the two-week waiting period for the UI program to respond to their claim.

6.207 A 1992 departmental study looked at the possibility of provincial government measures moving welfare claimants onto the UI rolls. It calculated that the resulting cost to the UI Program may have reached \$2.6 billion in 1991. This raises concerns that an ongoing “recycling” is under way between the social programs, rather than cost-effective action to enhance long-term employability.

6.208 **The Immigration and Unemployment Insurance programs may at times be operating at cross-purposes.** Workers from abroad played a significant role as a

Exhibit 6.31

The Federal Social Safety Net Programs

Examples of Key Program Links

Key Areas of Potential Program Links	Evidence
Provincial welfare systems and Unemployment Insurance	<p>A significant proportion of welfare recipients also received Unemployment Insurance at some point.</p> <p>A 1992 departmental study concludes that UI may be used as a substitute for welfare. Estimated UI costs: \$2.3 billion in 1991.</p>
Immigration, Employment and Unemployment Insurance	<p>Approximately 38% of employment growth in Ontario in 1986-1991 filled by workers from abroad. Interprovincial fiscal transfer from Ontario to regions of higher unemployment through UI amounted to \$2.3 billion in 1992.</p>
Federal training programs, social assistance and Unemployment Insurance	<p>Departmental evaluations show that training for UI claimants and social assistance recipients has some positive effects. However, in certain cases, their dependence on social programs increases.</p>
Social assistance and minimum wage	<p>A National Council of Welfare study suggests that there are strong disincentives for some social assistance recipients to accept minimum-wage work. The extent of such a disincentive effect was not estimated.</p>

supplementary source of labour between 1986 and 1991 in Ontario and British Columbia, two regions of employment growth (Exhibit 6.18). In Ontario, immigrants were considerably more significant than net internal labour movements from other provinces, while in British Columbia, they were roughly equal.

6.209 Both the Macdonald Commission and the OECD have voiced concerns that an unintended effect of social programs such as UI has been the interruption of the geographical adjustment of labour supply and demand in response to the jobs the Canadian economy creates.

6.210 Thus, a paradox exists: serious regional disparities in unemployment (labour surpluses) co-existing with a strong dependence on a supplementary labour supply channel from abroad (immigration) to fill Canada's occupational needs. Workers coming to Canada through this channel, which leads mainly to regions of employment growth, contribute to programs such as UI and greatly assist in paying for the interprovincial transfer of funds to regions of higher unemployment. In other words, the supply of labour from abroad assists in underwriting the costs of the social programs that the Macdonald Commission and the OECD felt were making more difficult the matching of labour demand and existing labour supply in Canada. This can result in the need for further supplementary labour supplies from outside the country to fill labour requirements in areas where there are employment opportunities, while other areas continue to experience labour surpluses.

6.211 The problem of matching labour demand and labour surpluses within Canada can involve several areas of concern. One is the movement of workers

to other regions where jobs are more plentiful. A further concern is the possible role played by supplementary supplies of labour from abroad in influencing the concentration of Canadian industry in regions of existing economic growth, while other regions experience high unemployment. We were unable to find adequate information touching on this issue of possible program effects. Yet, the possible implications clearly indicate that this is a very important issue that should be considered in the context of the range of effects accompanying Canada's immigration system.

6.212 **Federal training programs for UI claimants and social assistance recipients (SARs) have an impact on their earnings, employability and dependence on social programs.** A departmental study shows that some types of training for UI claimants increase their earnings and employability. As mentioned in paragraph 6.157, in certain cases, trainees registered a modest but significant rise in applications for welfare assistance, compared with the experience of comparable workers who had not taken training.

6.213 As indicated in paragraph 6.158, training for SARs increases their earnings and employability. The Department indicates that, as a result, dependence on social assistance is reduced. However, provincial government measures appear to be moving welfare claimants onto Unemployment Insurance. It is also not clear to what extent newly trained workers displace others or cause them to move to social assistance. This should be investigated further by the Department.

6.214 **There is often little financial incentive for a social assistance recipient to accept minimum-wage work.** Welfare rates generally are calculated on the basis of family size.

Minimum wage is a standard amount that does not vary with the circumstances of the household. Depending on the province, the size of a family and its needs, a household can be better off on welfare than on a minimum-wage income.

6.215 Exhibit 6.32, prepared by the National Council of Welfare, compares welfare benefits, which are not taxable, to working at minimum wage. An incentive to work is calculated when earnings from

minimum-wage jobs (gross income minus deductions from income taxes, CPP contributions and UI premiums) exceed the net welfare income (basic welfare income plus exempt earnings permitted without any reduction in welfare benefits). Disincentives are noted where welfare benefits are higher than earnings from minimum-wage jobs.

6.216 According to the National Council of Welfare, there are strong

Exhibit 6.32

Incentives (and Disincentives) by Household Type

Welfare versus Work at the Minimum Wage 1992

(Dollars)

Province/Territory	Household Type				
	Single Employable Person	Disabled Person	Single Parent	One-Earner Couple	Two-Earner Couple
Newfoundland	4,270	(842)	(2,135)	(2,696)	5,022
Prince Edward Island	125	(967)	(2,697)	(8,080)	(312)
Nova Scotia	2,448	(1,548)	(2,853)	(3,717)	4,269
New Brunswick	3,601	(771)	(789)	(3,003)	4,977
Quebec	2,207	1,127	2,793	(574)	7,154
Ontario	1,788	(2,412)	(4,685)	(8,810)	735
Manitoba	(42)	478	(46)	(9,047)	(1,353)
Saskatchewan	3,327	(408)	(618)	(4,390)	2,467
Alberta	2,059	1,039	(1,815)	(7,407)	1,049
British Columbia	2,349	(1,199)	(2,556)	(5,572)	2,925
Yukon	2,901	1,821	(1,115)	(7,723)	1,766

Source: *Incentives and Disincentives to Work*, National Council of Welfare, Autumn 1993

incentives for employable single people and two-earner couples to work in most provinces, but strong disincentives for other types of recipients. The table shows that earning less or more on welfare than on minimum wage is an incentive or a disincentive (shown in parentheses in the exhibit). This may be the case but there is no evidence on what these differences should be, in dollar terms, to really act as a motivation for taking work.

6.217 In many cases, the support levels for welfare substantially exceed feasible earning levels for those in minimum-wage jobs. This could be inequitable to those who support themselves and their families through low-wage employment. This possible inequity is exacerbated by the fact that many welfare clients are also eligible for income in kind (non-cash income) such as subsidized housing, training, family dental care, and so on. Since these are strong disincentives for some welfare recipients, measures to help them enter the labour market should be explored.

6.218 In summary, we have looked in this section at three large spending programs. These are Unemployment Insurance, social assistance programs supported by CAP, and training for UI claimants and social assistance recipients. In each case, we were attempting to determine what they were intended to achieve, and to discover from departmental information and other sources the actual effects of the money spent.

6.219 Recent program evaluation initiatives by the Department of Human Resources Development are significantly increasing the available information on UI effects. Its coverage needs to be extended to additional effects resulting from inter-program linkage in the

socio-economic field. There is simply no shortcut to building up a body of evaluation information on a program over a period of years.

6.220 In our opinion, the results measurement now being undertaken by the Department can make a real and positive difference to the public debate. Making these studies available on a timely basis will shed more light on the results achieved by federal social programs.

Matters Related to the Financing of UI

6.221 Unemployment Insurance is financed by contributions from employers and employees. There is a uniform annual UI premium rate in Canada, expressed as a percentage of insurable earnings. Deficits are financed through advances, bearing interest, from the Consolidated Revenue Fund. For example, the advances from Canada as at 31 December 1993 amounted to \$5.7 billion. Exhibit 6.33 presents the financial situation of the account from 1989 to 1993.

6.222 Changes have been made in the method of financing UI and in its benefits. The federal government, which had borne more than a third of the costs of UI in the 1970s, progressively transferred all costs to employers and employees between 1979 and 1990.

6.223 UI premium rates increased by 54 percent between 1989 and 1993, while the UI account went from a cumulative surplus of \$1.1 billion to a cumulative deficit of \$5.9 billion at the end of 1993. For 1994, the Employment and Immigration Commission forecast an annual surplus of some \$2 billion that should reduce the cumulative deficit to less than \$4 billion.

6.224 UI financing raises several important questions that should be dealt with in the context of a Social Security Review, but which we cannot fully address in this study because they relate to policy. In particular:

- what are the appropriate roles of the private sector (through employers and employees) and of government in the financing and governance of UI?
- is the current premium allocation between employers and employees appropriate?
- how should premium rates and maximum insurable earnings be determined?

• should the treatment of earnings while clients claim benefits be changed to reduce work disincentives?

• should the benefit repayment provision for high-income claimants be changed to alter the threshold for repayment?

6.225 Our study focussed on three issues related to the financing of UI, which we feel are important. They are:

- UI contributors and beneficiaries;
- the cost of financing the UI deficit; and
- the impact of the UI deficit on the deficit of the Government of Canada.

Exhibit 6.33

Financial Situation of the Unemployment Insurance Account 1989–1993

(millions of dollars)

		1989	1990	1991	1992	1993
		7.5%	8.1%	10.3%	11.3%	11.2%
Unemployment Rate						
<i>Program Costs</i>	Regular benefits	9,704	11,155	14,693	15,245	14,258
	Developmental uses	391	500	1,134	1,837	1,753
	Special benefits	1,008	1,118	1,573	1,737	1,704
	Fishing benefits	269	264	291	291	257
	Net Benefits	11,372	13,037	17,691	19,110	17,972
<i>Non-Program Costs</i>	Administration, other, Net interest (revenue)	1,047 (60)	1,209 (222)	1,270 5	1,151 255	1,300 405
	Net Costs	12,359	14,024	18,966	20,516	19,677
<i>Revenue</i>	Government's share Premiums	2,748 10,369	2,416 12,926	14,760	17,885	18,469
	Net Revenue	13,117	15,342	14,760	17,885	18,469
	<i>Annual surplus or (deficit)</i>	758	1,318	(4,206)	(2,631)	(1,208)
	Cumulative surplus or (deficit)	1,113	2,431⁽¹⁾	(2,045)	(4,676)	(5,884)

Source: UI Financial Statements

(1) Restated to \$2,161 million to reflect accrual accounting adopted in 1991

UI Contributors and Beneficiaries

6.226 In 1992, some 12.9 million employees contributed to UI while an average of 1.4 million individuals received benefits monthly. The proportion of beneficiaries to contributors varied from province to province. It ranged from 14 to 34 percent for Quebec and the Atlantic provinces and from 7 to 10 percent for the Territories, Ontario and the western provinces.

6.227 Some industries are financing less than their share of benefits. Industry-related data, obtained from the Department, show that unemployed workers in the primary and construction industries collected from UI more than three times the amount those industries contributed in 1992 (see Exhibit 6.34). These two sectors accounted for more than 20 percent of benefits paid.

6.228 As recognized in many studies, large variations in the use of UI between industrial sectors have led to a situation where industries providing relatively stable, year-round employment are regarded as subsidizing less stable industries.

6.229 Experience rating is often proposed as a means of eliminating or reducing cross-subsidies between industries. It is argued that, in keeping with "insurance principles", firms or industries that generate a disproportionate amount of unemployment through their layoff practices should pay higher premiums. The 1971 Act allowed the Canada Employment and Immigration Commission to make regulations for experience rating of individual employers. This provision was repealed in 1977 without ever having been used.

6.230 The Commission is on record as rejecting experience rating in its own

reviews (1977, 1980 and 1986). The government argued, among other things, that it was paying a substantial portion of UI costs. It maintained that some costs were beyond the employers' control and, therefore, should not be financed according to experience rating. It also argued that experience rating could potentially reduce employment opportunities in small firms and for youth. Administrative costs were also cited as an issue.

6.231 In the present context of scarce program resources, user pay is being more and more studied. This raises questions about the extent to which cross-sector subsidies pay for repeated use of UI by employees in seasonal industries.

6.232 A 1993 Statistics Canada study reported that seasonal employment accounted for a large portion of the repeated use of UI in the short term (defined as individuals claiming UI twice within 14 weeks). A recent departmental analysis indicates that UI claimants in seasonal employment impose a high ongoing cost. For example, in 1989, claimants in seasonal industries made up about a third of all claimants of regular benefits. About 80 percent of these made repeated claims within a two-year period.

6.233 Seasonal regulations were introduced in 1946. In 1956, coverage was extended to self-employed workers in the fishing industry. Seasonal benefits were integrated with the regular benefits, commencing in 1957-58, by the extension of benefit duration to about five-and-a-half months.

6.234 In 1962, a Committee of Inquiry into the UI Act proposed that seasonal benefits be replaced by an extended benefit plan reflecting regional variations in unemployment and financed by general revenues. Seasonal benefits were viewed as a major departure from the principles of

social insurance. The objection was not so much that persons working only part of the year in insured employment received a subsidy during the off-season, but rather that the subsidy was drawn from an insurance plan and financed by insurance contributions.

6.235 In 1971, with relaxed entrance requirements for regular benefits and an extension of their duration, seasonal benefits were no longer required. The government assumed more responsibility for financing the extended benefits that were attributable to national and regional unemployment rates over four percent.

6.236 The 1990 legislative changes simplified the structure of regular benefits and it is no longer possible to identify the amount of extended benefits attributable to regional unemployment rates. The duration of regular benefit payments remains tied to regional unemployment rates, with the cost, as noted, now shifted to employers and employees.

years of a deficit or surplus being incurred.

6.238 In the absence of a reserve, UI has had a cumulative deficit for 14 of the 22 years since 1972 and incurred over \$3 billion in interest costs. An additional \$1 billion has been projected for interest charges to finance its current deficit. It took about six years to pay off the cumulative deficit in the 1980s (see Exhibit 6.35).

6.239 One concern about the way premium rates are set relates to their year-to-year instability and, in particular, to the timing of rate adjustments with respect to business cycles. The timing appears to be disruptive to the economy.

6.240 The effect of rate increases on the economy is illustrated by the following examples. At the start of 1983, with the economy near its recessionary trough, the combined employer and employee premium rate was increased from 3.96 percent to 5.52 percent of insurable earnings. This represented an increase of some \$2 billion in UI premium payments from employers and workers over a year.

The Cost of Financing the UI Deficit

6.237 The 1971 legislation modified UI financing from a "funded" basis that established a reserve to cover existing liabilities, to a "pay as you go" basis. The reserve had eliminated the need for sharp premium rate fluctuations that can cause difficulties for employers. With the new approach, UI was for the first time allowed to accumulate deficits. The law set out a new rate-setting procedure that would eliminate any cumulative deficit over a relatively short period. The law made rate changes mandatory within two

Industry	Ratio
Primary	4.03
Construction	3.81
Food and Beverage Services	1.64
Mining	1.23
Transportation	1.18
Business Services	1.10
Manufacturing	.98
Retail Trade	.94
Wholesale Trade	.85
Finance	.58
Government	.53
Health	.48
Communications	.44
Education	.42
Other	1.33
All industries	1.00

Exhibit 6.34

Ratio of UI Benefits to Program Contributions by Industry
1992

Source: Canada Employment and Immigration Commission

6.241 A similar situation occurred in the recession that started in 1990. The combined rate had already been raised to 5.4 percent in 1990. Again, with the economy near its recessionary trough in late 1992, the combined rate was moved up to 7.2 percent, representing an increase in UI premium payments of some \$3 billion for the year ahead.

6.242 Increases of 54 percent in the rate since 1989 are attributable, for the most

part, to an expansion in the developmental uses of UI, to the end of the government's participation in financing UI, and to the recession. A large deficit and a subsequent rise in premiums in the early stage of an economic recovery can generate pressures for benefit reductions.

6.243 As we mentioned in our 1988 Report, a reasonable reserve in the UI Account can be desirable. It can alleviate the need for borrowing, reduce interest

Exhibit 6.35

**Unemployment Insurance
Premium Rates and Fiscal
Situation 1972–1993**

Year	Premium Rates (% of insurable earnings)	Annual Surplus/ (Deficit)	Cumulative Surplus/ (Deficit)	Interest Revenue/ (Cost) ⁽¹⁾
	Employee/ Employer	Millions of \$	Millions of \$	Millions of \$
1972	0.90/1.26	(388)	(152)	(1)
1973	1.00/1.40	(350)	(502)	(16)
1974	1.40/1.96	85	(418)	(27)
1975	1.40/1.96	321	(97)	(14)
1976	1.65/2.31	301	204	8
1977	1.50/2.10	210	414	12
1978	1.50/2.10	327	741	20
1979	1.35/1.89	(91)	650	25
1980	1.35/1.89	(656)	(6)	12
1981	1.80/2.52	337	331	26
1982	1.65/2.31	(2,728)	(2,397)	(89)
1983	2.30/3.22	(1,457)	(3,854)	(409)
1984	2.30/3.22	(692)	(4,546)	(453)
1985	2.35/3.29	101	(4,445)	(522)
1986	2.35/3.29	653	(3,792)	(463)
1987	2.35/3.29	1,424	(2,368)	(275)
1988	2.35/3.29	2,724	356	(104)
1989	1.95/2.73	758	1,113	60
1990	2.25/3.15 ⁽³⁾	1,318	2,161 ⁽²⁾	222
1991	2.25/3.15 ⁽³⁾	(4,206)	(2,045)	(5)
1992	3.00/4.20	(2,631)	(4,676)	(255)
1993	3.00/4.20	(1,208)	(5,884)	(405)

⁽¹⁾ Interest Cost 1972 to 1993 = \$3,010 million

⁽²⁾ Originally \$2,431 million, restated to reflect accrual accounting

⁽³⁾ UI rate increased to 2.80/3.92 for the second half of the year 1991

costs thereof, and provide some relative stability to the premium rate as well as protection against unexpected cost increases. The accumulation of a reserve will, however, create pressure for extending benefit coverage or decreasing premium rates. This raises the question of what constitutes a reasonable reserve and what time is required to build it.

The Impact of the UI Deficit on the Government of Canada Deficit

6.244 In 1986, with changes in government accounting policies, Unemployment Insurance was consolidated into the Government of Canada accounting entity mainly for reasons of control and ownership. UI expenditures and revenues are now shown in the government's financial summary, and its accumulated deficit or surplus is factored into the government's overall deficit. Thus, the net financial balance of UI affects the government's annual budgetary results.

6.245 In the short term, this interaction can influence the government's management of UI. While UI is self-financing over time, however, its impact on the federal budget is neutral in the long term.

Information Gaps

6.246 Our examination of available information on the results achieved by the social programs has identified a number of serious gaps in information.

6.247 In our opinion, these information gaps are important because they represent critical areas where parliamentarians need information on the performance and effects of the existing programs, to be able to consider more fully and realistically any future proposals for program

development submitted for Parliament's approval. Exhibit 6.36 summarizes our findings on such information gaps. We encourage the federal government to work with the provinces in order to fill some of the identified gaps.

6.248 Statistics Canada calculated in 1994 that the underground economy was likely to range up to three percent of Gross Domestic Product, a share that translated into some \$21 billion annually and included unrecorded employment activity. It is not known to what extent participation in the underground economy co-exists with ongoing dependence on government social programs.

6.249 Poverty is the subject of considerable debate in Canada. To understand the nature of poverty, useful and credible indicators that are acceptable to all stakeholders would help. The estimated number of poor and the poverty rate are two examples of key social indicators. At the present time, there is no general consensus on what poverty is, although numerous studies and research have been done on the subject. Like most nations of the world, Canada has no "official" measure of poverty.

6.250 Statistics Canada's low income cut-offs (LICOs) have been widely used as poverty measures, despite the fact that it has clearly and publicly stated that it does not regard LICOs as indicators or measures of poverty.

6.251 Besides LICOs, several other measures have been suggested as poverty measures. Differences in methods result in significant differences in the estimates of the number of people living in poverty. Thus, with several definitions used, it is currently difficult to determine precisely the number of poor and "near poor", and the extent of poverty in Canada.

Exhibit 6.36**Measurement of Program Results****Key information Gaps**

Program	Information Gap	Need to Measure
Canada Assistance Plan (CAP)	<ul style="list-style-type: none"> • Characteristics of clientele of programs supported by CAP; claim duration; movement in and out of social assistance. • Work disincentives. 	<ul style="list-style-type: none"> (a) Employability; (b) program dependence; (c) recycling between social programs; (d) targeting issues.
Canada Assistance Plan	<ul style="list-style-type: none"> • Extent of SARs' participation in the underground economy. 	<ul style="list-style-type: none"> (a) Program dependence; (b) program costs.
Training for Social Assistance Recipients (SARs)	<ul style="list-style-type: none"> • Long-term employment outcomes. • Job displacement of other low-income workers. 	<ul style="list-style-type: none"> (a) Net impact from training for SARs; (b) net benefits versus costs.
Unemployment Insurance	<ul style="list-style-type: none"> • Lack of clarity of objectives. 	<ul style="list-style-type: none"> (a) Program governance; (b) program accountability; (c) program costs.
Unemployment Insurance (Regular Benefits)	<ul style="list-style-type: none"> • Program payments less related premium by income group. • Program revenues versus expenditures by income group. 	<ul style="list-style-type: none"> (a) Redistributive effect.
Unemployment Insurance (Regular Benefits)	<ul style="list-style-type: none"> • Repeating claimants and seasonal workers. • Work disincentives. • UI-induced unemployment. • UI-induced labour force participation. • Lost production. 	<ul style="list-style-type: none"> (a) Possible negative effects; (b) program costs; (c) effect if repeated program use were discouraged.
Unemployment Insurance (Regular Benefits)	<ul style="list-style-type: none"> • Employer behaviour (increased layoffs). • Extent of participation of claimants in the underground economy. 	<ul style="list-style-type: none"> (a) Program effects on instability of employment.
Unemployment Insurance (Regular Benefits)	<ul style="list-style-type: none"> • Inter-program effects: UI and Immigration. • UI and geographical mobility of Canadian workers. • Immigration and financial contributions to UI fund. • Immigration and location of Canadian industry. 	<ul style="list-style-type: none"> (a) Immigration-UI and structural adjustment, and regional development.
Training for UI Claimants	<ul style="list-style-type: none"> • First evaluation completed (1993). • Need for more frequent evaluations. 	<ul style="list-style-type: none"> (a) Monitor progress in achieving increased value for money.

6.252 To get a very clear picture of the extent of poverty in Canada, researchers must “all march to the same tune”. The use of an approach that allows credible comparisons is of paramount importance.

Parliament should have consistent and trustworthy information on poverty before considering any proposals for program redesign.

Conclusion

6.253 In this study, we have reviewed available information on program results and additional effects of inter-program linkage in three key social policy areas: regular UI benefits, social assistance programs supported by the federal government, and worker training for UI claimants and social assistance recipients. We have identified serious concerns with respect to both information issues and value-for-money questions.

6.254 We acknowledge that the Social Security Review covers other programs that we have not reviewed in this study. We also understand that the issues we have raised cannot all be addressed at once and it is the prerogative of Parliament to decide what should or should not be considered.

6.255 Over the past few years, we have noted special efforts to study many of the socio-economic issues facing Canada. Such efforts by both the private and the public sectors are very encouraging. More studies are planned for release this fall and in early 1995. The results of these studies should provide more information, close certain gaps and, perhaps, raise more questions that will need answers.

6.256 As we have seen, estimates of spending in the social field vary widely, depending on which programs are included. The available social program statistics could be improved: there are problems of definition in estimating spending and in relation to the availability and quality of data. With the spotlight on social programs, shortcomings in public social expenditure reporting are neither academic nor merely domestic.

6.257 We have attempted to situate federal social spending in the context of overall social spending in Canada. This

will, we hope, help everyone see the national picture as well as the federal, provincial and municipal shares of social spending in Canada. After all, the same taxpayers are the source of funds for all three levels.

6.258 Our discussions with key stakeholders suggest that it is not clear if UI is to function as an insurance program or as a special income redistribution measure. There is evidence of repeated use of UI by employees in seasonal work, of increased layoffs and of using UI to reduce costs in social assistance programs. Thus, clarifying the objectives of the UI Program is important; contributors should have as clear a statement as possible of what the money is intended for and actually used for, and what results have been achieved.

6.259 There is substantial evidence of benefits obtained from social programs. These should not be overlooked. UI payments provide an important safety net to unemployed workers, put funds into poorer regions of the country and, at low points in the business cycle, play a significant stabilizing role in the economy, reducing the severity of the downturn. The Canada Assistance Plan, delivered through provincial programs, has successfully directed federal money to people in need and may have helped launch some social services in poorer regions. Training funds for both UI claimants and social assistance recipients have led to increased earnings and employability.

6.260 However, using a variety of sources, we have identified evidence of possible negative effects that have received inadequate attention from the government. These possible effects include long-term dependence on government programs; disincentives to work built into both UI and welfare

systems; increased resort to layoffs and use of UI to carry firms through low production periods; and an overall rise in the national unemployment rate, combined with chronic labour surpluses in some regions of the country co-existing with dependence on labour supplies from abroad in others. There are no easy, fast solutions for some of these problems.

6.261 A further concern is the possibility that the UI Program, through its effects on unemployment, may be resulting in a poor employment performance by the Canadian economy in relation to its productive potential during periods of economic growth.

6.262 There are also concerns related to the financing of UI: the timing of rate adjustments, interest costs incurred because of the absence of a reasonable reserve in the UI Account, and temporary layoffs as a result of a uniform premium rate.

6.263 It must be emphasized that, at the present time, there are more questions than answers concerning possible negative effects. Yet, enough information exists to suggest that these questions should be taken seriously and evaluated by the government. Answers – even approximate answers with identified margins of error – should be sought and brought forward for debate.

6.264 From the available information, it is clear that UI and provincial social assistance measures provide financial support to the same clients that experience employment disruptions. The impacts of

inter-program linkage should be clarified as Parliament considers social policy changes.

6.265 The complexity, size, design and potential linkage of the social programs, their effects on workers' behaviour in the labour market, and the fact that the programs involve two or more levels of government call for improved accountability. To a large extent, this can be assisted by filling the information gaps on what the programs are doing and the results they are achieving. Given the debt and deficit situation, parliamentarians need a much clearer idea of what works and what does not.

6.266 The government is faced with the difficult task of formulating policies that will give broadly consistent — not conflicting — signals across economic, fiscal, social and education fields, the labour market, and the public and private sectors. Economic constraints should not be allowed to obscure the importance of social objectives, and social policies should not impede economic progress and should be framed in light of the fact that resources are limited.

6.267 The issues and questions discussed in this study are unlikely to be temporary or self-correcting and they are certainly difficult to resolve. What is at stake is the well-being of millions of Canadians who remain unemployed, who live in poverty, and who seek to improve their skills. We hope that this study will be useful to parliamentarians as they consider the government's proposals.

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents

Volume Chapter

1	Introduction
1	Matters of Special Importance and Interest
2	Follow-up of Recommendations in Previous Reports
3	Other Audit Observations
4	Background on the Audit Process
	Appendices
A.	Auditor General Act
B.	Financial Administration Act – Extracts from Part X
C.	Reports of the Standing Committee on Public Accounts to the House of Commons
D.	Report on the Audit of the President of the Treasury Board's Report to Parliament: Tablings in Parliament for Parent Crown Corporations: Annual Reports and Summaries of Corporate Plans and Budgets
E.	Taking Stock of Special Operating Agencies – A Summary of Conclusions of Joint Public and Private Sector Steering Committee
	Studies
2	5 An Innovative Society and the Role of Government
3	6 Study of Key Federal Social Programs
4	7 Information for Parliament: Departmental Reporting on Sectoral Activities and Follow-up of 1992 Chapter on Departmental Reporting
5	8 Information Technology – Reaping the Benefits and Managing the Risks
	Audits
6	9 Science and Technology – Overall Management of Federal Science and Technology Activities
	10 Science and Technology – Management of Departmental Science and Technology Activities
	11 Science and Technology – The Management of Scientific Personnel in Federal Research Establishments
	32 Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents (cont'd)

Volume	Chapter	
7	12	Aspects of Federal Real Property Management
8	13	Federal Management of the Food Safety System
9	14	Agriculture and Agri-Food Canada – Farm Income Protection
10	15	Atomic Energy Control Board – Canada's Nuclear Regulator
11	16	Correctional Services Canada – Custody of Inmates
	17	National Parole Board
	18	Correctional Services Canada – Supervision of Released Offenders
12	19	Environment Canada – Environmental Partners Fund
	20	Environment Canada – Ice Services
13	21	Foreign Affairs and International Trade Canada – Technical Assistance Contributions to Central and Eastern Europe and the Former Soviet Union
	22	Foreign Affairs and International Trade Canada – Financial Management and Control
14	23	Indian and Northern Affairs Canada – Social Assistance
15	24	National Defence – Defence Management Systems
	25	National Defence – Information Technology
	26	National Defence – Infrastructure Reductions
	27	National Defence – Infrastructure Management
16	28	Revenue Canada – Customs Assessment Activities
	29	Revenue Canada – Collecting Income Tax Debts
	30	Revenue Canada – Goods and Services Tax: Audit and Special Investigations
	31	Revenue Canada – Ensuring Fairness of the Income Tax System: Detection of Non-Filers and Special Investigations
	32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development
	33	Department of Finance and Revenue Canada – Tax Assistance for Retirement Savings
17	34	Public Works and Government Services Canada – Management and Operation of Crown-owned Office Buildings

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1994 Report of the Auditor General of Canada to the House of Commons

Volume 4 – Table of Contents

Chapter	Page
7 Information for Parliament: Departmental Reporting on Sectoral Activities and Follow-up of 1992 Chapter on Departmental Reporting	7–3

Chapter 7

Information for Parliament

Departmental Reporting on Sectoral
Activities and Follow-up of 1992
Chapter on Departmental Reporting

Table of Contents

	Page
Main Points	7-5
Introduction	7-7
Follow-up of 1992 Chapter	7-7
1992 Chapter on Departmental Reporting	7-7
Comments at Public Accounts Committee Hearing	7-8
Government Follow-up Status	7-8
Awaiting instructions of the new Parliament	7-8
Reporting guidelines are no longer mandatory	7-9
Existing Part III format on CD-ROM	7-10
Update of 1992 Departmental Examples	7-10
Follow-up Status Summary	7-10
Departmental Reporting on Sectoral Activities	7-11
Parliamentary Concern about Sectoral Information	7-11
Office Work on Sectoral Activities	7-12
Examples of Departmental Reporting on Sectoral Activities	7-12
What Is Needed to Make Sectoral Reporting Happen?	7-15
A clear government designation of a sectoral activity	7-15
Establishing a lead department and a formal requirement to report	7-16
A reporting policy for sectoral activities	7-17
Recommendations	7-17



*Assistant Auditor General: Ron Thompson
Responsible Auditor: Jeff Greenberg*

Information for Parliament

Departmental Reporting on Sectoral Activities and Follow-up of 1992 Chapter on Departmental Reporting

Main Points

7.1 Two years ago we called for government to reform its departmental reporting to be more transparent. We suggested that Parliament should expect and receive a regular accounting for the exercise of the entire business of government: in a phrase, global stewardship. This year, we continue this theme of transparency by following up on our 1992 Report, and extend it to the sectoral activities of government.

7.2 As part of our normal follow-up process, we examined the government's intentions to reform departmental reporting as we recommended in our 1992 Report. We found that the government is developing concepts and proposals for a broad reform of its management systems, which would include departmental reporting, but it has not yet released its plans. With respect to implementing the pilot project to put the Part IIIIs into electronic form, plans are currently under review.

7.3 This year, we went beyond departmental reporting and examined the extent to which government reports on its many sectoral activities. We did this because a considerable part of the government's business is delivered by more than one department. In such cases, reporting that is department-oriented does not give a complete picture of those activities. We found many examples of this in the sectoral audits we have reported on over the last few years.

7.4 We believe that there should be better sectoral reporting. This means that when a sectoral activity is identified, one department has to be given the lead responsibility to provide a summary-level report to Parliament for the entire sector.

7.5 But, in the end, reporting of any kind will not change soon unless Parliament is explicit in letting government know that current reporting is inadequate and that it wants it changed.

Introduction

7.6 In our 1992 Report we took a fresh look at departmental reporting to determine whether the existing reporting framework, developed in the early 1980s, was meeting reporting needs of the 1990s. The study findings were based on substantial input from members of Parliament, the House of Commons Standing Committee on Public Accounts and senior bureaucrats. The first part of this chapter summarizes the action taken by the government in response to the findings and suggestions we presented in our 1992 chapter.

7.7 The second part looks at sectoral reporting. In that part of the chapter the focus is on the many activities of government — such as food safety, search and rescue, and immigration, to name a few — that are being delivered by more than one department. The concern is that reporting oriented exclusively to departments will not give a complete picture of those sectoral activities. Our focus for this review is to examine current government policy for reporting on sectoral activities and provide suggestions for improving that reporting.

Follow-up of 1992 Chapter

1992 Chapter on Departmental Reporting

7.8 In preparing the 1992 chapter we noted two overriding concepts: first, Parliament does not manage; that is the role of government. Second, the business of government must be open and transparent, irrespective of Parliament's use of the information government provides. In the context of these overriding concepts we made three recommendations to the government for

the improvement of departmental reporting.

7.9 First, we saw that government is in the complex business of serving the public interest; the instruments it uses to achieve that mission are varied and go beyond annual spending — for example, the use of loan guarantees and regulatory programs. We raised the notion of reporting on "global stewardship" — the entire range of duties and obligations of departments, not just the activities reflected in annual spending.

7.10 We recommended that the policy for preparing the Estimates Part III be revised to emphasize reporting on global stewardship. We suggested a reporting framework consisting of four questions and three overall criteria. The criteria were relevancy, reliability and understandability, and the four questions were:

- What are the department's mission and lines of business?
- How does the department carry out its lines of business to achieve its mission?
- What are the department's strategic objectives for realizing its mission, and plans for managing the significant public resources under its control?
- How did the department do at meeting its objectives, and how much did it cost?

7.11 Second, we suggested that departments produce those stewardship documents on a multi-year cyclical basis in conjunction with in-depth cyclical review by parliamentary committees. We believed that the business of departments and the broader interests of parliamentary committees would be better served by the production of a cyclical accountability document on global stewardship, which would be based on the Part IIIs. We believed then, as today, that the Part IIIs should be useful at times other than at the

The Comptroller General said that the Part III's should evolve toward the concept of global stewardship.

tabling of the Estimates. Such an accountability document could be useful in helping find solutions to deficit and debt concerns and it could be useful to members of Parliament during the pre-budget consultation and formulation process.

7.12 Third, we also recommended that additional departmental information be updated annually and made available through electronic libraries with easy, flexible access on request, in either electronic or hard copy form. We also suggested that an annotated bibliography of this additional information be tabled at the same time as the Estimates. The idea is to make the printed document smaller and less intimidating, with additional, more detailed information available in electronic form to serve the specific needs of users.

Comments at Public Accounts Committee Hearing

7.13 At hearings of the Public Accounts Committee on the 1992 departmental reporting chapter, members were supportive of the global stewardship concept. One member said that he "is not interested in knowing how much each department spent on paper, pens and pencils... but the focus should be on the goals set by the department initially and the results it obtained." This is precisely the point we were making in the chapter.

7.14 The Comptroller General agreed with the concept of global stewardship but indicated that it differed from the concept of Part III Estimates in the scope of operations covered. That is, global stewardship covers financial activities that are not necessarily limited to annual expenditures, such as loan guarantees and regulatory programs. He indicated that the Part III's had been designed as budget support documents and that, although change is needed, the documents should

evolve toward the concept of global stewardship. He explained, "A continuing frustration in this whole area has always been the lack of visible use and demand by parliamentarians for improvement in these documents...I need hard questions in estimates committees when a document is found lacking. My experience has been that when that happens, on the rare occasions that it does, the document improves."

7.15 We believe that our 1992 chapter, which included what we saw as a clear summary of parliamentary frustrations and concerns about departmental reporting, could be seen as the demand for improvement in departmental reporting that the Comptroller General was seeking.

7.16 He also told the Committee that he was "very interested in the information technology... getting information onto a data base that parliamentarians or their research staff can access, because, quite frankly, the more I can put information in this sort of form, the less of these [Part III] I have to print, and that's a saving to the taxpayer of Canada."

Government Follow-up Status

7.17 In June 1993 the Office of the Comptroller General was merged into the Treasury Board Secretariat. That included responsibility for the form of the Estimates documents. In addition, the Secretary of the Treasury Board became the Comptroller General of Canada.

Awaiting instructions of the new Parliament

7.18 In a letter to our Office outlining the status of the government follow-up to our 1992 chapter, the Treasury Board Secretariat indicated in January 1994 that:

...until the 35th Parliament and the newly elected government have had the opportunity to debate

parliamentary reform and determine the nature and extent of change, it was and is deemed premature to implement recommendations which concern not only reporting reform but also imply significant changes to the role of Parliamentary Committees; the cycle and periodicity of the Supply process; and, information technology government-wide.

Accordingly, we have not implemented any specific reform recommendations from Chapter 6 of your 1992 report.

7.19 The Treasury Board Secretariat also pointed out that the previous Public Accounts Committee had failed to issue a report on the subject of departmental reporting before the dissolution of Parliament.

7.20 Our view is that even without parliamentary reform, such as changes to the role of committees or to the Supply process, there is still a need for changes to the Part IIIs.

7.21 For example, as we said in our 1992 chapter, there will always be a need for a document of record that describes the stewardship of individual departments and ensures that the activities of government are transparent. In these troubled economic times, with concern about government deficits and debt, parliamentarians need good departmental reporting to help them consider and assess performance and costs at any time during the year, not just when examining the Estimates.

7.22 In September 1994, the Treasury Board Secretariat advised us that the government is developing concepts and proposals for a broad reform of the resource management system, which would include departmental reporting. However,

no specifics have been put forward nor has a timetable been presented at this time.

Reporting guidelines are no longer mandatory

7.23 The Comptroller General stated during the Public Accounts Committee hearings on our 1992 chapter that the Part III is a departmental document and that those who have felt constrained by the standard structure could restructure their documents in the interest of better and more meaningful disclosure. As a result, he said, the guidelines for preparing Part III Estimates would no longer be mandatory. However, departments would still have to comply with six principles of disclosure: relevance, reliability, objectivity, completeness, materiality and comparability. Departments were notified of this change in the instructions for preparing the 1994-95 Part III documents. However, no further guidance was provided, such as suggested models of reporting. We believe that guidance from the Comptroller General is needed to help departments move toward global stewardship reporting.

7.24 According to the Treasury Board Secretariat, only a small number of departments moved from the established guidelines in this year's reporting.

7.25 The only changes to the current *Guide to the Preparation of Part III of the Estimates* are those that encompass reporting circulars issued previously and changes in responsibilities due to government reorganization. For the most part, these revisions are technical in nature and do not change the overall reporting principles. The Treasury Board Secretariat reiterates that the current framework is based on Parliament's information needs as reported by the Public Accounts Committee almost 15 years ago, and updated with additional requirements for disclosure in response to specific

The government is starting to develop concepts and proposals for a broad reform of its management systems, which would include reporting. No specifics or timetable have been presented at this time.

Plans to put the Part IIIIs into electronic form are currently under review.

In general, the departments we used as examples in 1992 have made little effort to improve reporting.

committee requests. In our view, more fundamental changes are needed if Part IIIIs are to evolve to meet the needs of users over the next decade.

Existing Part III format on CD-ROM

7.26 The Treasury Board Secretariat states in its follow-up status letter that it has "experimented successfully" with information technology to access Part III information. A pilot project to put a selected number of Part III Estimates on CD-ROM was carried out for the 1993-94 Estimates. The information was presented in the same format as the published Part IIIIs but with the capability to search for words and phrases. Although this is a step in the right direction, it is not the more comprehensive electronic library we suggested in 1992.

7.27 The evaluation report on this pilot project concluded that text retrieval for the Part IIIIs would be useful for Parliament and that cost savings could be realized through the reduced search time for users. It recommended that the project be continued and expanded for the 1994-95 Part III Estimates. However, the pilot CD-ROM was not used heavily by its intended audience. This is understandable, since it was a partial data base developed primarily to test the available technology. If the data base were expanded and covered a longer period of time, it would become more useful to parliamentarians as well as to government. But users would still have to be convinced that such a tool would be useful and easy to use. In September 1994, the Treasury Board Secretariat informed us that plans are currently under review to put the Part IIIIs into electronic form.

7.28 We support the continuation of the CD-ROM project because we believe that people will increasingly make use of that technology. However, we are mindful that even the very best technology cannot make

a text in need of change, in both form and content, any better.

Update of 1992 Departmental Examples

7.29 In the 1992 chapter we selected a number of departments and agencies and assessed their reporting against the criteria we proposed for departmental reporting. Since our observations were intended to serve only as examples, we did not direct any formal recommendations to those specific departments. However, in our follow-up we wanted to find out whether these same departments had modified their reporting in response to the chapter and to the relaxation of the government's reporting guidelines.

7.30 Overall, the results were mixed. In some cases, such as the RCMP, the Department of Natural Resources (then Energy, Mines and Resources) and the Department of National Defence, the department responded to specific observations by either including the missing information or modifying or deleting the information. In most of the other cases there was no significant change in the reporting.

7.31 Only one of the organizations, Correctional Services, moved away from the standard reporting format for Part III Estimates and added a section on its results, by corporate objective. We believe that this format is a move in the right direction and could provide Parliament with a better understanding of the organization.

Follow-up Status Summary

7.32 In summary, the government has released departments from the strict format for departmental reporting that existed in the past. However, it has not provided alternative reporting principles or formats to help them move from the old concept of

program reporting based on annual spending to the stewardship concept presented in our 1992 chapter. In that respect, the government has not yet provided the leadership required to make reporting more useful to parliamentarians in the years ahead.

7.33 In addition, the electronic reporting project has not yet been developed beyond the pilot stage even though we have been informed that plans to do so are under review. We believe that electronic reporting should continue and that it should look beyond simply putting the existing Part III information and format on electronic media. There is a range of possibilities that could be considered, from simply rearranging data to take advantage of available technology to developing a sophisticated government-wide data base coupled with electronic access. We recognize, however, that the benefits of any particular option would have to be weighed against the costs of providing such a system.

7.34 Finally, the departments mentioned in our 1992 chapter have made some attempt to improve their reporting with respect to the specific observations we made but, in general, have made little effort to improve reporting overall with innovative reporting styles, including the reporting principles we had raised.

Departmental Reporting on Sectoral Activities

Parliamentary Concern about Sectoral Information

7.35 Control of deficits and debt is a major concern of this Parliament. The current government has restructured a number of departments, and is now carrying out program reviews that are

intended to get at such fundamental issues as the role of government in selected areas, while at the same time identifying opportunities to reduce costs. Such reviews cannot look at individual departments in isolation, because many government activities are delivered by more than one department. This also means that, if Parliament is to assess government efforts in those areas, it will need the right kind of information. Sectoral reporting means providing, in one location, summary-level information on a sectoral activity overall, with references to where additional information can be found.

7.36 Over the years, members of Parliament have expressed difficulty in obtaining relevant and understandable information on sectoral activities of the government. For example, one MP at the Public Accounts Committee hearing on our 1992 chapter said, on the subject of agricultural expenditures, that he was:

...incapable of telling you exactly to what degree the government is involved and how much we spend in the whole area of Canada... since a number of different departments are involved. I think it is absolutely necessary that we be in a position to determine how much is being spent on agriculture in Canada and where those funds are being spent.

7.37 The Comptroller General concurred with the need for such information but pointed out a number of administrative reasons why he believed that it cannot be provided in the Estimates. For example, he said that the Estimates are not finalized until late in the process and it is often difficult to pull numbers together for even one department, let alone across departments.

7.38 More recently, a member of the House Standing Committee on

Sectoral reporting means providing, in one location, summary-level information on a sectoral activity.

MPs have expressed difficulty in obtaining relevant and understandable information on sectoral activities.

Previous audits of sectoral activities have indicated that information on the sectoral activities was generally lacking.

Government Operations asked where she could find information on the infrastructure program. The President of the Treasury Board, who is the minister responsible for the program, said that the information could be found in the Part III Estimates of the individual agencies involved. This meant that the only way the MP could get the summary information she needed was to pull it together herself. In our view, this places an unreasonable burden on members of Parliament and other users of information.

7.39 The June 1993 government reorganization reduced the number of departments and grouped some related activities under one minister. But there are still activities, such as those we mention below, that continue to require the expertise of more than one department to carry them out. Our concern is that there needs to be a set of guidelines and reporting principles that will direct the government in reporting to Parliament on its sectoral activities.

Office Work on Sectoral Activities

7.40 In recent years, the Office has carried out audits to ensure that issues of a sectoral nature were examined as a whole, not piecemeal. Immigration (1990) and search and rescue (1992) are two recent examples. Our findings indicated that information on sectoral activities was generally lacking. In addition to the sectoral activities that we reported on in previous years, there are others that we report on this year. Some were included in audits described elsewhere in this Report, while others were examined for this chapter. The following are summaries of findings on a selection of sectoral activities.

Examples of Departmental Reporting on Sectoral Activities

7.41 **Search and rescue.** In 1992 we reported on the management of the search and rescue program. The audit focussed on the operational aspects of the program and did not report on the information provided to Parliament in the Part III Estimates document, or on the requirement to report.

7.42 The Minister of National Defence is the lead minister and spokesman for search and rescue matters. In 1987, the Treasury Board established the National Search and Rescue Secretariat to co-ordinate search and rescue by the federal government. This Secretariat is a distinct management entity within the Department of National Defence. Its responsibilities include co-ordinating the consolidated annual planning and decision making for search and rescue, as well as the related reporting mechanisms. That includes preparing a comprehensive multi-year operational plan. In addition, as part of the original terms of reference, all government resources devoted to search and rescue are to be reported separately in National Defence's Estimates Part III.

7.43 The consolidated information in National Defence's Part III contains an overview on all the departments involved, including information for each of the three rescue areas: air, marine and land. The program performance section gives the program costs for each of these areas, broken down by department. However, Parks Canada and RCMP do not separate their search and rescue costs by rescue area. That means that all of their costs related to search and rescue are included under land service, only because the bulk of their involvement is land-based.

7.44 But search and rescue information in the Part IIIs of the other departments generally is very limited. For example, the

Department of Transport provides some search and rescue information, but only for the marine service, its prime responsibility. It does not mention the \$875,000 it spends on air services, a figure stated in National Defence's Part III.

7.45 Also, the resources allocated to other departments' search and rescue activities are shown in the National Defence Part III but are not shown separately in those of the respective departments. Moreover, no departmental report refers to the summary information in the National Defence document, with the exception of Canadian Heritage–Parks Canada.

7.46 International Assistance Envelope. The Canadian International Development Agency (CIDA) at the beginning of its Part III provides an introduction to Canada's International Assistance Envelope (IAE) program. It describes the rationale for the program, its overall funding formula, and the primary role of CIDA in managing the program and providing policy advice. In addition, it explains the IAE activities carried out by other departments, stating that further information is available in their respective Part IIIs. There is reference to the overall government strategy document, *Sharing Our Future*. The first two figures in the Part III provide financial requirements for the entire IAE program (in numbers and graph formats), including expenditures by other departments. This is an example of how information can be consolidated and reported in a lead department's document.

7.47 Immigration. In 1990 we reported that information provided to Parliament on the immigration program overall was incomplete and fragmented. While Employment and Immigration was responsible for most aspects of immigration activities, the former departments of External Affairs and Health

and Welfare carried out immigration activities overseas. Information on the various components was provided in the respective departmental Part III Estimates, but there was no summary in any one document.

7.48 Since that audit, responsibility for overseas immigration activities has been transferred to the newly created Department of Citizenship and Immigration. As a result, reporting on the bulk of the immigration program is now provided in a single department's Part III. However, some significant immigration responsibilities are still carried out by other departments, principally Revenue Canada (inspection at ports of entry), RCMP/CSIS (prosecution of violators), and Foreign Affairs (provision of common administrative services at missions abroad). Complete summary-level information on those aspects of immigration is still not provided in the Citizenship and Immigration Estimates Part III, nor does that document specifically refer to other information on immigration issues in the Part IIIs of the other departments.

7.49 Multilateral relations. Our 1991 Report included a chapter on membership payments to international organizations. The chapter reported that accountability for multilateral relations was diffused among a number of departments. Foreign Affairs (then called External Affairs) had the lead role but we noted that its co-ordinating role with other departments needed clarification. We also noted that its reporting to Parliament did not give an adequate picture of Canada's multilateral activities overall. Resources used by Foreign Affairs and the other departments are not compiled and reported in total, nor is there any substantial information on outcomes and results. In the 1993 follow-up the Department advised that, in the face of resource constraints, it was

asking for guidance from members of Parliament on their needs for additional information before it undertook to provide significant amounts of new published material.

7.50 Employee pension plans. In 1991 the Office reported on employee pensions. The three major government employee pension plans are administered by separate departments: National Defence for the military plan; RCMP for the force's plan; and Treasury Board Secretariat for the public service plan. Interest on the pension accounts is charged to interest on the public debt and is the responsibility of the Department of Finance. The chapter concluded that reporting of employee pension program costs and liabilities was weak. For example, it estimated that total pension costs exceeded \$1 billion annually. But public service pension costs are allocated to each department and are reported in their individual Estimates, and there was no aggregate total reported in the Estimates. However, details of actual aggregate totals are fully disclosed in the Public Accounts. In addition, the RCMP and National Defence Part III's include little information on their pension costs, which accounted for a significant portion of their program costs.

7.51 Food safety. In Chapter 13 of this Report we outline our findings on food safety management by the federal government. As explained in that chapter, the sectoral audit concluded that the information contained in the various departments' Part III Estimates does not provide members of Parliament with an overall understanding of federal food safety activities or the results achieved.

7.52 For example, according to its Part III, Health Canada has primary responsibility for food health, safety and nutrition. Other departments with significant roles in this area are Agriculture

and Agri-Food (inspection and regulation), Fisheries and Oceans (inspection) and Industry (consumer affairs). An interdepartmental committee of deputy ministers, chaired by the Deputy Minister of Health, co-ordinates federal food regulation and inspection. The Committee is required to report periodically to Cabinet. However, with the exception of a few references to co-operative initiatives, mention of that reporting responsibility is the only comment made on the sectoral nature of food safety and inspection in the lead department's Part III. The other departments do not provide information on the lead role of Health Canada or any clear indication that food safety is a sectoral activity.

7.53 Among the sectors we examined, the food safety sector was unique in that there is a designated lead department and a requirement to report. However, that requirement is for the interdepartmental committee to report internally, to government, not for the designated lead department to report externally, to Parliament.

7.54 Science and technology. Federal government expenditures on science and technology research and development are estimated by Statistics Canada to be more than \$7 billion annually, with almost 60 departments and agencies involved. According to the February 1994 Budget, the activity is to be the subject of a comprehensive review that focusses on results. The Budget indicated that the Minister of Industry was preparing the Canadian Science and Technology Policy Paper, which will be the starting point for the review. The intention, as the Minister of Finance said in his Budget speech, is to put in place a more effective federal policy on research and development, including "a real review of results". Chapter 9 reports our findings on this area.

7.55 The chapter notes that, at present, there is no overall consolidated summary of science and technology research and development expenditures, objectives, plans and results. The various departments and agencies with research and development expenditures report separately on their own activities. While general questions in the House of Commons on research and development normally are answered by the Minister of Industry, there is no formally designated lead department for the collection and publication of overall information on science and technology research and development expenditures.

7.56 Canada Works Infrastructure Program. The Canada Works Infrastructure Program is one of the government's key economic policies, designed to pump \$6 billion into the economy over the next few years for infrastructure projects. The federal share of the cost is \$2 billion. The program was one of the first initiatives implemented by the government. The 1994 Budget also made prominent mention of the program. Responsibility for the program was assigned to the President of the Treasury Board. Actual funding for the program is handled through the three regional development agencies, along with Industry Canada and Indian Affairs and Northern Development.

7.57 Yet the Treasury Board Secretariat Part III makes no mention of the infrastructure program. During its review of the Treasury Board Estimates, the House of Commons Committee on Government Operations was told that information on the infrastructure program was available in the individual Part III documents of the various development agencies. However, the information in those documents was also limited.

7.58 In summary, these examples show that, in most cases, reporting on sectoral activity overall is inadequate.

What Is Needed to Make Sectoral Reporting Happen?

7.59 To make sectoral reporting happen, four things need to occur: first, the government needs to determine the sectors on which it wants to provide information to Parliament; second, once a sectoral activity is designated, one department must be assigned the lead role; third, there must be a formal requirement for the lead department to report externally on the sector; and finally, there must be a framework for reporting that includes a set of principles.

A clear government designation of a sectoral activity

7.60 A key issue is to determine first what constitutes a sectoral activity. In some cases, a sectoral activity can be a single program activity delivered by more than one department or agency. In other words, there are common objectives but the delivery of specific aspects of the activity is shared among a number of departments and agencies. Again, an example is immigration, where responsibilities for immigrant processing and settlement are carried out by various departments like Citizenship and Immigration, Foreign Affairs, Revenue Canada (Customs and Excise), Solicitor General (RCMP and CSIS) and Justice. In other cases, several departments and agencies carry out related activities; an example is scientific research and development.

7.61 The current government also uses the term "sector" to describe the broad expenditure groupings in Part I of the Estimates. We believe that this definition, which includes departments or programs in the same general sphere of activity, while

To make sectoral reporting happen, four things need to occur:

- determine the sectors to be reported;
- designate a lead department;
- establish a requirement to report; and
- develop a framework for reporting.

useful for Part I, is too broad to give meaningful information on the delivery of a common set of services. For example, Heritage and Cultural Programs is a sector that includes Heritage Canada, CBC, several museums, the National Film Board, and the National Capital Commission. Those entities carry out diverse activities that range from communications to athletics to national parks, each with separate objectives. In addition, information on a sector may not include all the expenditures related to a particular program. For example, information in the Estimates for the Social Programs sector includes direct expenditures on immigration by the departments in that sector, such as Citizenship and Immigration, but not the related expenses of departments in other sectors, like National Revenue (Customs and Excise), Foreign Affairs, Justice, RCMP and CSIS.

7.62 In the context of information for Parliament, we believe that for any group of activities defined by the government as a sectoral activity and carried out by more than one department or agency, Parliament ought to receive a summary stewardship report on the entire sector. Such a report should be contained in one document and should be cross-referenced to the reports of the other departments and agencies that carry out specific components of the sectoral activity.

Establishing a lead department and a formal requirement to report

7.63 Some sectoral activities, like search and rescue, are reported on; others, like the infrastructure program, are not. In the case of search and rescue, the Treasury Board decision setting up the National Search and Rescue Secretariat required that the Secretariat submit a multi-year operational plan annually and report on

search and rescue in the lead department's Part III document.

7.64 By comparison, although the President of the Treasury Board is the minister responsible for the infrastructure program, the costs of that program are borne by the three regional development agencies, Industry Canada and Indian Affairs and Northern Development. There is no requirement to bring the information together in one document. As a result, there is no mention of the infrastructure program in the Treasury Board Secretariat's Part III.

7.65 We can infer from these and other examples that there is a need for the formal designation of a lead department with authority to request information from the other departments. There is also a need to establish a formal requirement to report. Without this formal requirement, departments do not have a reason to provide the additional sectoral information to Parliament, information that we believe is needed to close the accountability loop.

7.66 In some instances, like the infrastructure program, a lead minister may be designated as the government's spokesperson for the sectoral activity — in this case, the President of the Treasury Board. But the requirement to report on the activity often is overlooked in the creation of the sector, with the result that information is limited and dispersed over a number of departments' documents.

7.67 Responsibilities of a lead department may differ. In a clearly defined service like immigration, the lead department may be accountable for the overall objective but Cabinet may delegate certain aspects of the activity to other departments, through memoranda of understanding, for example. In other cases, like expenditures on scientific research and development, the individual departments determine their own objectives for their

expenditures and the lead department may be responsible only for consolidating and reporting information on the entire activity.

7.68 In our view, each department remains accountable to deliver the specific component for which it is responsible, and to report on that delivery in its own departmental document. But regardless of how the accountability relationships are set up, there is a need for government to designate a lead department to bring together information on the sectoral activity overall and to report it to Parliament.

7.69 In this regard, we mean reporting summary-level information on a sectoral activity at the overall level, not detailed information at the operational level. As we said in our 1992 chapter on departmental reporting, detailed operational information should be readily available on request, but not necessarily in the printed stewardship document.

7.70 Ideally, such summary-level information should be available to Parliament at the time the Estimates are tabled. If, as the Comptroller General suggested, this is not feasible, the government should explore alternative methods of providing Parliament with such information.

A reporting policy for sectoral activities

7.71 According to the Treasury Board Secretariat, there are no reporting guidelines for sectoral activities. The *Guide to the Preparation of the Part III Estimates* provides guidelines for a department to report on its own responsibilities, but there are no provisions in the Guide that cover services delivered by more than one department. When such reporting does occur, it is as a result of a requirement in the enabling legislation, regulation or authority for the activity.

7.72 We believe the framework and principles for departmental reporting that we published in 1992 apply also to reporting on a sectoral activity. The major difference is the concept of a lead department. The framework we suggested for reporting focussed on four questions. The questions, modified for sectoral activities, are:

- What is the sectoral activity and its overall mission?
- How is the sectoral activity delivered to achieve its mission?
- What are the sectoral activity's strategic objectives for realizing its mission and for delivering against it?
- How did the sectoral activity do against its objectives and how much did it cost?

7.73 We also stated that information for Parliament ought to meet three simple criteria: relevancy, reliability and understandability. To be relevant, the information needs to be meaningful, complete and timely, and answer our four questions. To be reliable, the claims made need to be consistent from one information source to another and to stand the rigour of validation. And to be understandable, what is written must be comprehensible to anyone not versed in the language of the public service or in the details of the sectoral activity. This means using plain language and making information accessible. The four questions, combined with the three criteria, could become a framework for assessing whether government is providing members of Parliament with useful information on sectoral activities.

Recommendations

7.74 The Secretary of the Treasury Board & Comptroller General should inform Parliament of the timetable for

The government needs encouragement from Parliament to change the type of information it provides.

the reform of departmental reporting. Such reform should include consideration of the concepts raised in our 1992 Report to reflect the entire business of departments and agencies and to take advantage of changing technology.

7.75 When a sectoral activity is established or identified by government, the Secretary of the Treasury Board & Comptroller General should ensure that a lead department is designated and formally required to report on the overall sectoral activity.

7.76 The Secretary of the Treasury Board & Comptroller General should

develop a framework for the departmental reporting of sectoral activities.

7.77 With respect to reporting, it is clear that the government responds to specific requests from Parliament and its committees. We believe that Parliament could play an important role in the reform of reporting by letting the government know that current information is inadequate. The government needs encouragement from Parliament to review and propose changes to the type of information it currently provides, both in departmental reporting and on sectoral activities.

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents

Volume Chapter

1	Introduction
1	Matters of Special Importance and Interest
2	Follow-up of Recommendations in Previous Reports
3	Other Audit Observations
4	Background on the Audit Process
	Appendices
A.	Auditor General Act
B.	Financial Administration Act – Extracts from Part X
C.	Reports of the Standing Committee on Public Accounts to the House of Commons
D.	Report on the Audit of the President of the Treasury Board's Report to Parliament: Tablings in Parliament for Parent Crown Corporations: Annual Reports and Summaries of Corporate Plans and Budgets
E.	Taking Stock of Special Operating Agencies – A Summary of Conclusions of Joint Public and Private Sector Steering Committee
	Studies
2	5 An Innovative Society and the Role of Government
3	6 Study of Key Federal Social Programs
4	7 Information for Parliament: Departmental Reporting on Sectoral Activities and Follow-up of 1992 Chapter on Departmental Reporting
5	8 Information Technology – Reaping the Benefits and Managing the Risks
	Audits
6	9 Science and Technology – Overall Management of Federal Science and Technology Activities
10	Science and Technology – Management of Departmental Science and Technology Activities
11	Science and Technology – The Management of Scientific Personnel in Federal Research Establishments
32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents (cont'd)

Volume	Chapter	
7	12	Aspects of Federal Real Property Management
8	13	Federal Management of the Food Safety System
9	14	Agriculture and Agri-Food Canada – Farm Income Protection
10	15	Atomic Energy Control Board – Canada's Nuclear Regulator
11	16	Correctional Services Canada – Custody of Inmates
	17	National Parole Board
	18	Correctional Services Canada – Supervision of Released Offenders
12	19	Environment Canada – Environmental Partners Fund
	20	Environment Canada – Ice Services
13	21	Foreign Affairs and International Trade Canada – Technical Assistance Contributions to Central and Eastern Europe and the Former Soviet Union
	22	Foreign Affairs and International Trade Canada – Financial Management and Control
14	23	Indian and Northern Affairs Canada – Social Assistance
15	24	National Defence – Defence Management Systems
	25	National Defence – Information Technology
	26	National Defence – Infrastructure Reductions
	27	National Defence – Infrastructure Management
16	28	Revenue Canada – Customs Assessment Activities
	29	Revenue Canada – Collecting Income Tax Debts
	30	Revenue Canada – Goods and Services Tax: Audit and Special Investigations
	31	Revenue Canada – Ensuring Fairness of the Income Tax System: Detection of Non-Filers and Special Investigations
	32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development
	33	Department of Finance and Revenue Canada – Tax Assistance for Retirement Savings
17	34	Public Works and Government Services Canada – Management and Operation of Crown-owned Office Buildings

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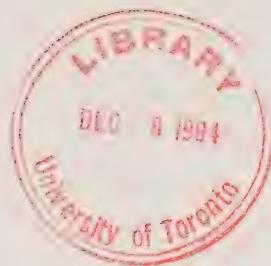
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Report of the
Auditor General
of Canada
to the House of Commons

1994

VOLUME 5
Chapter 8



Report of the
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of Canada**
to the House of Commons

1994

VOLUME 5
Chapter 8

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1994 Report of the Auditor General of Canada to the House of Commons

Volume 5 – Table of Contents

Chapter		Page
8	Information Technology – Reaping the Benefits and Managing the Risks	8–3

Chapter 8

Information Technology:
Reaping the Benefits and
Managing the Risks

Table of Contents

	Page
Main Points	8-5
Background	8-7
The rapidly changing environment	8-7
Introduction	8-8
How we see the world of information technology	8-8
OAG Initiatives	8-8
Best Practices Symposium	8-8
Getting Organized	8-9
Central vision and strategy	8-9
Treasury Board: setting the vision	8-11
The Chief Informatics Officer	8-11
The Blueprint	8-13
The Canadian information highway: building the infrastructure	8-14
Selecting the Right Projects	8-15
Developing a business case	8-16
Electronic commerce	8-16
Partnerships	8-17
Process re-engineering and cultural change	8-18
Managing the Project Well	8-20
Change management issues	8-20
Future Audit Plans	8-22
Exhibits	
8.1 Government Informatics Infrastructure	8-12
8.2 Information Highway	8-14
8.3 Making the Silver Dart Fly	8-18



Information Technology: Reaping the Benefits and Managing the Risks

The Rapidly Changing Environment Requires New Approaches to Reap the Benefits of Information Technology

*Assistant Auditor General: David Roth
Responsible Auditor: John Adshead*

Main Points

8.1 The effective use of information technology to deliver services that are tailored to the public's changing needs is a priority for government. Information technology offers government the opportunity to deliver more services faster, at the same or lower costs. Information technology also offers significant potential for delivering new services or delivering existing services in ways that provide added value to the public.

8.2 To reap the benefits of the new information technology, the government must change the way it views and uses information and technology. It must evaluate existing processes, look for new approaches, then re-engineer the way it delivers information and services. The government must deliver flexible systems that provide easy communication of information among departments and with the public. This will help consolidate the number of access points for the public and help change the public's view of the government as a number of disparate organizations.

8.3 There are many risks and challenges in implementing information technology today. The rapid changes in technology and the environment in which it is implemented make it essential that government take the leading role in managing the risks that these changes bring. The risks are both internal and external to government; they include organizational barriers, complexity of the technology, changes in the legislative and economic environment, and impacts on public servants. Both management and employees have a responsibility to do their part. Changing the role of information technology in government will require concerted action, vision and authority, to successfully realize the benefits while managing the risks.

8.4 One of the challenges facing our Office is that of finding more effective and efficient means to audit the new world of information technology. We have identified practices that other organizations use to manage the risks associated with technological change and to make more effective use of technology. Using these practices as a foundation, our Office will assess the government's progress in realizing the benefits of technology.

Background

The rapidly changing environment

8.5 “Revolutionary” describes the impact of information technology (IT) on business and private lives during the 17 years since our first report on Computer And Information Systems Evaluation in 1977. Increasing numbers of new products hit the market daily. It has been estimated that, on average, each Canadian interacts with over 10 different computers every day. Almost all human activity is affected in one way or another by computer technology. Whether we are programming a VCR, withdrawing money from an automated teller machine, receiving a government cheque by direct deposit, driving a car, or going shopping, technology has radically altered the way we live.

8.6 Whereas just recently there was passive acceptance of information technology, individuals and businesses now develop and run their own on-line systems and electronic bulletin boards; all that is needed is a personal computer and a telephone line. Inexpensive and easy access to networks and other large on-line systems in other sectors increases the pressure on governments to provide electronic access to their services and information. Furthermore, information technology raises expectations of new and improved services and reduced costs.

8.7 The federal government has a significant and growing investment in information technology. The Treasury Board Secretariat estimates that the direct spending on IT-related activities is over \$3 billion annually. Since government systems are not designed to gather and consolidate project or product cost information, actual spending including direct and indirect costs may well be twice

that amount. The Treasury Board Secretariat’s estimate includes over 20,000 people whose combined salaries exceed \$1 billion. These people develop, install, maintain and manage over 200,000 workstations, more than 500 mini- and mainframe computers, a multitude of different computer-based administrative and financial systems, and hundreds of IT projects.

8.8 The IT community is growing rapidly, compared with the rest of government. Information technology staff is increasing by about six percent a year and other directly related IT expenditures by almost nine percent a year. To put this in perspective: if a single department were organized to consolidate all federal IT activities, it would have the fourth-largest budget in government, behind those of Finance (which includes interest on the public debt), Human Resources Development and National Defence.

8.9 With such a large and diverse investment in information technology, it is not surprising that we have reported, in the past, cases of significant cost overruns, long delays and questionable benefits. These cases erode public confidence in government’s leadership and its commitment to managing the technology investment and guiding systems projects. The complexity of new solutions in complicated, distributed environments is further increasing the risk of failure. The increasing importance and growth of information technology in government will also increase the visibility of IT management.

8.10 Maintaining public confidence will require a dramatic change at the highest levels of government and within the public service. Only leaders with a clear vision of the immense possibilities of information technology will be able to create and implement a powerful and

The federal government has a significant and growing investment in information technology.

workable strategy for the future. The risks are great but, weighed against the opportunities to reduce costs, streamline operations, and deliver services in partnership with all levels of government and the private sector, the risks of not rising to the challenge are far greater.

Introduction

How we see the world of information technology

8.11 This chapter describes how our Office views the world of technology, and outlines some of the practices we are expecting to find in our audits of information technology, and the concepts supporting those practices. We will assess these concepts against technology's potential to improve service to the public and to increase the value of present and future services.

8.12 Consumers have always judged value on the basis of quality and price. Today's consumers understand value to include convenience, after-sales service and dependability. Government has long recognized that technology can reduce costs or avoid cost increases. Government's challenge will be to achieve these benefits while gaining the added values of convenience and improved service to clients that technology can also provide. To do so, government must challenge the assumptions that support its current approach to technology.

OAG Initiatives

Best Practices Symposium

8.13 Responding to concerns of the House of Commons Standing Committee on Public Accounts, the Auditor General of Canada, in his 1992 Report, "committed to a program of reviewing the

development of major systems in the government." Across government, departments are planning or developing major administrative and operational systems initiatives for accounting and finance, travel, materiel, inventory management and program delivery. Over the years, we have voiced our concerns about the high cost of systems under development. Public Accounts Committee members are concerned about cost overruns and the effectiveness of government systems. However, we believe there is little benefit in presenting Parliament with only the impacts and the costs of what went wrong. In a time of restraint, our Office hopes to add value by raising issues and problems before further costs are incurred or decisions cannot be changed.

8.14 Our Office, in co-operation with Treasury Board, held a Symposium on Best Practices in Systems Under Development in September 1993. Attended by 125 senior public and private sector representatives, the symposium provided a forum for hearing first-hand from leading experts in the field and for presenting our preliminary findings on best practices in systems under development. The symposium proceedings were subsequently published by our Office, and included what we believe to be the 30 best practices. These practices were the culmination of an extensive literature search, almost 100 interviews in government departments, agencies and private sector companies, and briefs on systems development submitted by major systems integrators.

8.15 Each of the 30 best practices, which should be followed during a systems development project, can be linked to one of three major steps that we expect to find in any government IT project:

The risks are great but the risks of not rising to the challenge are far greater.

- **Getting organized.** The first step is to adopt a government-wide vision, to ensure that departmental strategies are aligned with that vision and that senior management is committed to and supports the plans, and to secure co-operation at all levels of government.

- **Selecting the right projects.** The second step is to identify potential projects that support the departmental strategy, to develop business cases for the projects and to select those projects that best support the business plans of the organization and produce the maximum net benefit.

- **Managing the projects well.** The third step is to adopt and follow good project management practices that ensure that users' needs are met, that the business case remains valid at each phase of the project, and that the project is completed on time and within budget.

8.16 The symposium confirmed these best practices to be common-sense guidelines based on proven management principles that are considered necessary for the successful implementation and management of government information technology projects. It was also evident that there is no "magic formula" for delivering successful systems. In the absence of a single "silver bullet" solution, good communications, transparency, common sense and experience are the best tools available.

8.17 The government projects discussed in this chapter illustrate use of the best practices and how information technology can be used to solve problems and produce benefits. These examples have not been audited. While they illustrate the range of opportunities that can accrue, they are not presented as ideals, or as cases of adherence to all the best practices.

Getting Organized

Some critical elements of the IT environment that we would expect to find in government organizations before major projects are started:

- An organizational environment that includes an alignment of corporate strategies, plans, policies, methodologies and standards; at the highest level this implies adoption of a government-wide vision that the departments should be in harmony with.
- A management culture and philosophy that favour a business approach to systems development, over a purely technological approach.
- A demonstrated ability of the organization's culture to accept change.
- A flexible systems development methodology that encompasses any size of project and any approach.
- A committed senior management that gives strong support for IT projects, assigns resources appropriately and recognizes the appropriate time to risk unproven technologies or stay with proven technologies.

There is no "magic formula" for delivering successful systems.

Central vision and strategy

8.18 A clear central vision and a strategy to integrate that vision across an entire organization are crucial if major new systems are to take advantage of the opportunities presented by information technology. The government of Singapore has a clear central vision and a strategy. Singapore presents us with a case of a government taking the lead role and involving both the public and the private

**Canada does not yet
have a national
information
technology plan.**

sectors. The vision is national. The strategy is to collaborate with the private sector.

Singapore recognized in 1984 that electronic data interchange (EDI), the passing of information electronically, would improve the efficiency of cargo and container handling in its Port. Enormous quantities of paperwork were required to administer the turnaround of cargo ships. Today, 80 percent of all the information required to run the Port is processed through EDI, and about 60 percent of the shipping community are subscribers to EDI. Delivery costs and waiting times have been greatly reduced, and fewer staff are required to handle paper.

At the same time that Singapore introduced electronic data interchange in the Port, it introduced the first EDI system for processing international trade documents. Almost all declarations for import and export of goods are now electronic. Traders can obtain all necessary permits and approvals within 15 minutes, instead of the day or two it used to take for trips back and forth to government counters. The Port and Trade systems are linked so that subscribers get the services of both. Within the Port, the systems can track cargo and container movements and vessel arrival and departure information. These initiatives have helped the Port increase activity from handling 1.4 million containers for 68 shipping companies in 1984 to handling over 8.5 million containers a year for 134 shipping lines.

While working in partnership with the private sector, Singapore has also aggressively pursued the use of technology in government. The Republic of Singapore is highly committed to information technology and believes it is important for the government to

demonstrate its willingness to computerize. Over a decade ago, the government established the National Computer Board to promote national computerization in the government sector and to act as a dedicated provider of information technology consultancy services to the government. These services include assistance in defining the mission, objectives and strategies; identification of key strategic application systems to enhance effectiveness and efficiency; management and operation of computer information systems for all departments; and development of national standards and methodologies. The National Computer Board stresses collaboration between the public and private sectors to exploit information technology for national competitive advantage.

The next step for the National Computer Board is called *IT2000 – A Vision of an Intelligent Island*. IT2000 was the product of a rigorous study of the 11 major economic interests on the island to see how information technology can be used to improve business performance and quality of life. Ultimately, IT2000 sees people doing almost all their transactions with government or private business electronically. Examples include paying bills, submitting applications, and routine shopping. They extend to booking tickets, accessing vast video and reading libraries, browsing through the world's museums and art galleries, and communicating with friends and family.

8.19 While Canada does not yet have a national information technology plan comparable to that of Singapore, a number of initiatives that are under way will result in plans for the use of IT in government and ventures between government and the private sector. All these initiatives have

the potential to become part of a national plan.

Treasury Board: setting the vision

8.20 Just as business has recognized the need to align its information technology activities with its strategic directions, Treasury Board has recognized the need to align government IT activities with government business activities. With the 1992 publication of *Enhancing Services: Through the Innovative Use of Information and Technology*, Treasury Board took the government's approach to IT in a new direction. Called Vision 2001, this five-year strategic direction lays the foundation for the future of IT in government. Two significant elements of this vision recognize the need for:

- managing information assets in an information technology environment (for example, process redesign and building the core infrastructure); and
- common and integrated systems and the standards needed to achieve these systems (for example, shared systems).

8.21 Treasury Board considered Vision 2001 both a vision statement and a document that would require a plan setting out in greater detail how the strategy would be put into action. Still to be developed are a national strategy and vision that incorporate both public and private enterprises.

The Chief Informatics Officer

8.22 As information technology began to play a central role in business, companies in the private sector recognized the need for an individual to manage the delivery of IT as a critical resource and to focus on the use of technology to support business issues. Usually, it is the chief informatics officer (CIO) who is responsible for developing the IT strategy

and ensuring that it aligns with the corporate strategy. The CIO links IT planning to the strategic directions of the organization and to the use of technology in automating the redesign of the workplace and work processes.

8.23 Consistent with the private sector example, Treasury Board in 1993 created the position of Chief Informatics Officer with a mandate to implement Vision 2001. Creating the position signalled the government's intent to provide leadership in information technology.

8.24 The creation of the CIO function is only one step in providing leadership and the Chief Informatics Officer is only one of many senior government managers who must demonstrate commitment to information technology. Senior management commitment means visibly and continuously championing IT. It means giving the information technology function, within reason, the people and dollars that fit the time-frame and scope of the IT initiative. It means empowering individual public servants to allow them to help themselves. Commitment also means being personally accountable for the successful implementation of IT initiatives.

8.25 The CIO function establishes a single focus for information technology and re-engineering in government. It seeks to answer the need to streamline operations, to re-engineer processes, and to provide an integrated approach to ongoing systems work. A series of committees support the Chief Informatics Officer's activities (see Exhibit 8.1). We are hopeful that the position of CIO will help define and implement a clear and flexible architecture to enable the federal government, in partnership with other governments and the private sector, to realize fully the potential of information technology.

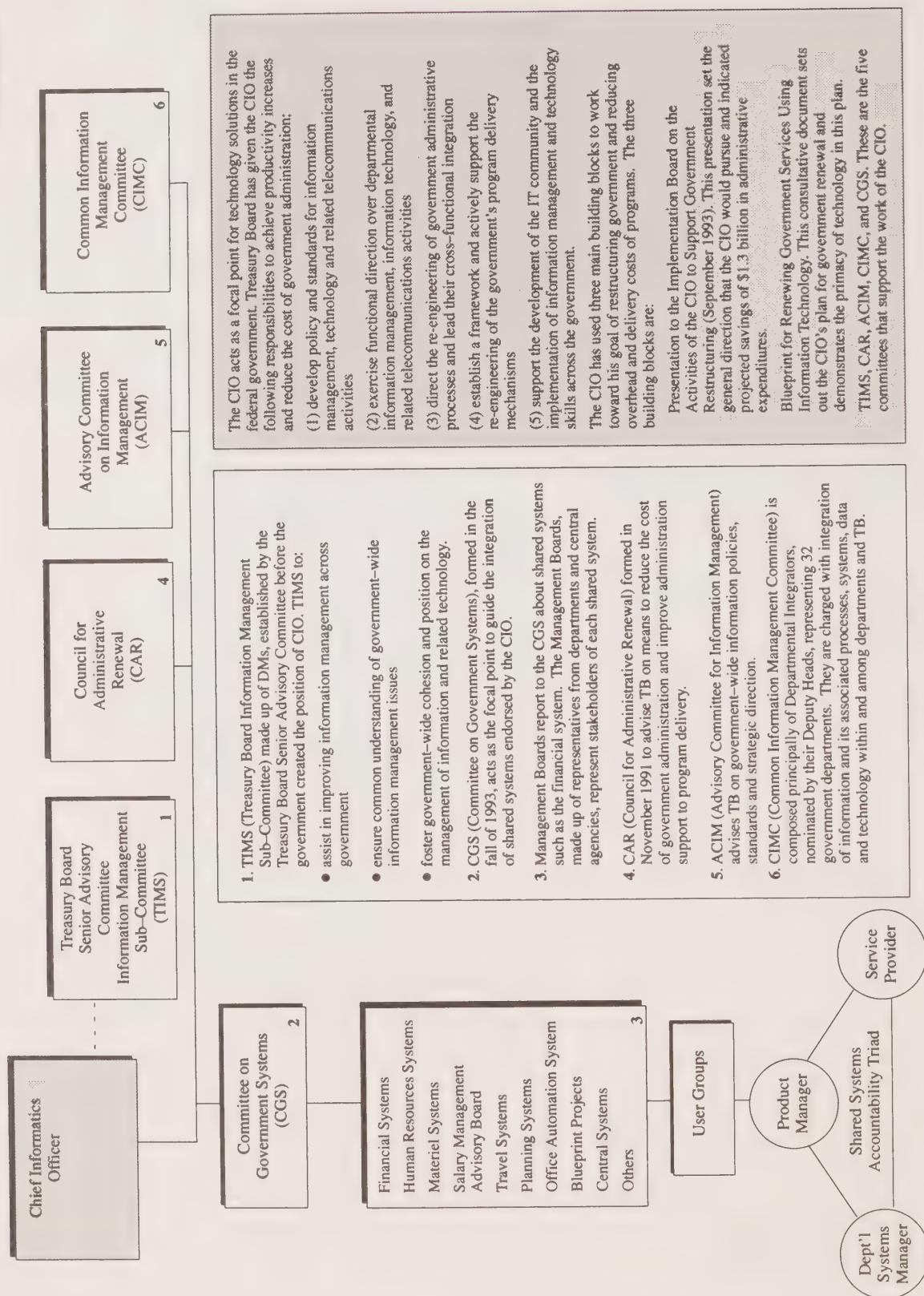
Treasury Board has recognized the need to align government IT activities with government business activities.

The CIO function establishes a single focus for information technology and re-engineering in government.

Information Technology: Reaping the Benefits and Managing the Risks

Exhibit 8.1

Government Informatics Infrastructure



The Blueprint

8.26 A major element of the government's corporate strategy is *The Blueprint for Renewing Government Services Using Information Technology*. Released for comment by the President of the Treasury Board in February 1994, the Blueprint presents in draft a detailed framework for using information technology to support government-wide service renewal. Based on directions set out in Treasury Board's Vision 2001, the Blueprint sets out the government's plan for information technology. The vision and the principles detailed in the Blueprint were approved by Treasury Board in June 1994, after extensive analysis of comments from departments, other governments and the private sector.

8.27 The plan incorporates the CIO's expectations for the savings that will result from the co-operative development of shared systems, particularly in the area of administration, where the basic operations of departments are similar. To date, the CIO has endorsed 11 shared systems in the areas of finance, personnel and materiel management, with an estimated cost avoidance of over \$200 million.

8.28 This approach contrasts with what has been the practice: each organization building and maintaining its own system. This practice hampered information sharing. It helped create the lack of an integrated government-wide information strategy and contributed to reliance on isolated "islands of information" within departments and agencies. That reliance, in turn, led to increased overhead costs for systems maintenance and data collection and to duplication of information because data could not be shared. Most government information is stored on older, large computer systems known as "legacy

systems". The challenge in managing these legacy systems is to find ways to convert information to formats that are readily transferable to other applications and, thereby, to improve government-wide sharing of information while still respecting the legal aspects of privacy and access to information.

8.29 The Blueprint also states that the public and private sectors should have access to the full range of government services through a single service window. Ultimately, this "single window" would allow people to obtain all the services or information they require in a variety of ways, including going to a single government office, communicating from home through a personal computer, touch-tone telephone or interactive television, or through use of a self-service kiosk in a shopping centre. This plan has profound implications for the design of government-wide systems, the building of a common, shared communications network, and the need for interdepartmental agreement on how to share information. It also has profound implications for the organization of service delivery across all federal government departments and with other levels of government.

8.30 Adoption of the Blueprint throughout the public service is meant to improve services to the public and reduce costs for program delivery and overhead. The Chief Informatics Officer has committed to delivering \$2 billion in savings and cost avoidance in government departments over a five-year period. Of the \$2 billion, the CIO estimates that about \$700 million could be saved by delivering programs more efficiently and \$1.3 billion could be cut from administrative overheads. The CIO expects that \$800 million of the \$1.3 billion in overhead reduction could

The Blueprint sets out the government's plan for information technology.

**The Canadian vision
for a national
infrastructure is still in
its infancy.**

be realized if departments adopted shared systems, or at least chose solutions from a limited number of approved options.

8.31 The Chief Informatics Officer's role is extremely difficult. The CIO must foster the co-operation that is needed to develop a clear vision for both the government and the country. Policies, procedures, security and standards are important, but in our opinion the CIO's prime role is to support the program delivery needs of government departments, rather than to act as a gatekeeper for technology standards.

**The Canadian information highway:
building the infrastructure**

8.32 The information superhighway is playing the same role the railway did in the late nineteenth century. Voice, data, wireless, broadcast and cable signals

available on the same highway offer the potential for multimedia, interactive and multipurpose access by every home and office across the country. The convergence of the computing, telecommunications and "information" industries in the entertainment, education, health, publishing and government sectors has the potential to transform Canadian society.

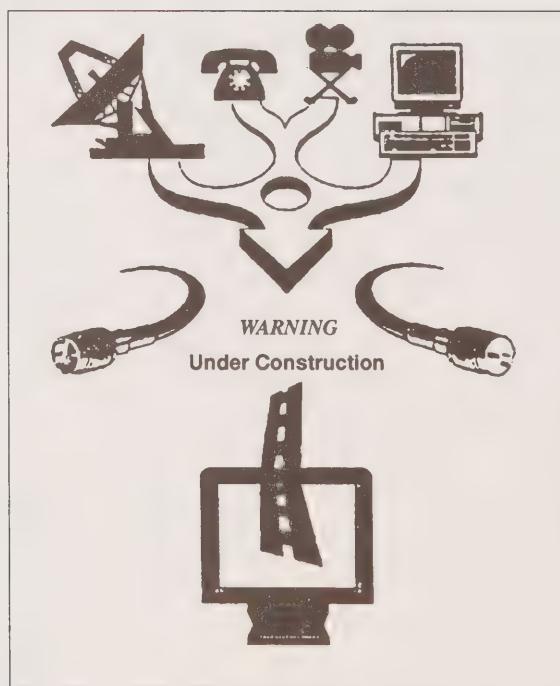
8.33 The Canadian vision for a national infrastructure is still in its infancy. Industry Canada's Information Highway Advisory Council has announced that its vision is "to make Canada number one in the world in the provision and utilization of the information highway, creating substantial economic, social and cultural advantages for all Canadians."

**The Canadian Network for the
Advancement of Research, Industry and
Education (CANARIE)** is Industry Canada's main vehicle for encouraging the development of a Canada-wide information and communications infrastructure. Operated and managed by the private sector, CANARIE will be the backbone of a national high-speed electronic network that will give Canadian engineers and scientists access to each other and to a broad range of information services. It involves participants from dozens of public and private sector organizations. By linking to regional and local networks, it will be able to offer access to vast data bases, software programs, electronic mail and data libraries. Its business plan calls for the expenditure of over \$1 billion by the year 2000. The federal share, beyond the \$26 million approved to 31 March 1995, is now under consideration.

In the first two years of the project, CANARIE focussed on expanding and promoting the use of high-speed networks among researchers, developing test

Exhibit 8.2

Information Highway



facilities as a showcase for Canadian products and encouraging the private sector to bring innovative network-related products and applications to market. CANARIE's vision is to build on the strengths of Canada's telecommunication and education systems and to respond to future opportunities.

8.34 Other countries have ambitious plans to develop their communications infrastructure. The United States has committed U.S.\$2 billion a year to research and development and to applications development for a National Information Infrastructure that will link all schools, universities, hospitals, clinics and libraries by the year 2000. The European Community plans to spend U.S.\$3.8 billion over four years for a data highway. Japan is calling for U.S.\$200 billion to be spent by 2015 to wire every school, home and office with fibre optic cable.

8.35 Canada is considered to have one of the best telecommunications systems in the world. Its experience with leading-edge telephone and cable technology positions it to deliver the many promised services of a multimedia world. Given global markets and free trade, many experts feel that the creation, movement and use of information will be a major source of new jobs and wealth. If we do not continue to build on our telecommunications base, heavy investment in new infrastructure and technology by other major trading powers could mean the loss of Canada's position as a world leader.

8.36 At risk on the information highway is privacy of information. Security of information held by the government is already a legal requirement. The Canadian national vision will have to address the issue of

privacy for both the private sector and the government. Recent surveys show that most Canadians approve of the information highway, but the vast majority have some concerns over privacy and access to personal information. The federal Privacy Commissioner has warned that, unless rules of the road are put in place to protect personal data, the information highway's "first roadkill will be our personal privacy and dignity".

8.37 Building the information highway and making it secure will require leadership and support from all levels of government. Together they will have to develop a national vision in co-operation with the private sector.

The Canadian national vision will have to address the issue of privacy.

Selecting the Right Projects

Some critical elements that we would expect to see government managers using when they are selecting projects:

- Develop a business case that includes all costs of implementation from training to ergonomic furniture. Constantly review and reassess the business case throughout the project. Confirm that reasons for automating are still valid and timely, particularly for projects of longer duration.
- Link the business case to the corporate strategy and departmental program objectives; include feasibility studies, cost-benefit analysis, risk analysis and a post-implementation review.
- Partnerships, strategic alliances and contracting out should all be considered.
- Before automating a process, use the opportunity to consider re-engineering it.

Using EDI, the potential saving on government transactions is significant.

Developing a business case

8.38 Ranking and selecting information technology projects according to solid business cases will require access to reasonably accurate cost information. Current government accounting systems are not designed to easily capture costs for individual projects, nor to record capital investments as one would find in the private sector. Some departmental systems do gather cost information but most current data are in incompatible formats and cannot be easily consolidated. Estimating IT investment in both the public and the private sectors is further complicated because of the many hidden costs. For example, a \$5,000 expenditure for a personal computer is captured, while other costs such as training, support services and office re-engineering are seldom, if ever, included in IT cost estimates. By recognizing that these additional costs exist, senior managers can make better decisions and plan to deal with them sooner.

Electronic commerce

8.39 Electronic commerce, which means using technology to do business electronically, becomes possible with the information highway. For years, the private sector has used two types of electronic commerce: electronic data interchange (EDI) and electronic funds transfer (EFT).

8.40 Automated teller machines use EFT to give people access to funds from their bank accounts or charge cards anytime, almost anywhere in the world. The use of EFT direct-deposit programs eliminates the costly production of payroll, superannuation and social assistance cheques and has already resulted in significant savings for the government.

8.41 EDI is the electronic exchange of business data between computer applications, in a structured format and using a communications link. Part of the government's *Strategic Direction for the 90's* is to use electronic commerce as a tool to fundamentally change its business practices from paper-based document processing to a totally electronic environment, with a goal to be paperless by the end of the decade. With an estimated \$28 reduction in the total cost of each business transaction using EDI, the potential saving on 17 million annual government transactions is significant. EDI helps improve storage and retrieval and lets many users access the same information at the same time.

Customs Automated Data Exchange (CADEX), introduced in Customs and Excise in 1988, allows brokers and importers to transmit entry data to the Department to speed the release of merchandise at the border. CADEX also lets Customs transmit accounting statements to importers. The response time for importers has been reduced from 10 days to 30 minutes and the government keys the data only once. Today, brokers and importers submit 8 million electronic documents a year, using CADEX. Revenue Canada estimated that the pay-back period for the system was less than two years.

8.42 Electronic data interchange also makes possible significant productivity gains in time, money and quality. Both the public and the private sectors need more data and more complex data interactions to support their business functions. Data manipulation is the value-added process that transforms data into information and makes it a valuable resource. The private sector, driven by competition, is changing the way it views information. The federal government,

faced with fiscal pressure and public demand for improved service and access to information, must do the same. Government has historically seen information as a cost. Tools such as EDI can provide an opportunity to use information for its strategic advantage: not only to reduce costs but also to offer new services and to improve existing services.

Electronic Filing (EFILE), at Revenue Canada, is an example of how the government changed the way it does business and, in the process, reduced costs and improved service. For years, private sector taxpayers used computer programs to prepare their tax returns and sent a printed copy to Revenue Canada. Now, with EFILE, personal income tax information is sent electronically.

Taxpayers using EFILE receive their assessments and tax refunds sooner. Assessments for electronic returns are processed within about 14 days, compared to the usual three to six weeks for paper returns. For taxpayers requesting direct deposit of refund cheques, the processing period under EFILE can be as short as eight days. In its second year of nation-wide operation, about 3.2 million taxpayers used EFILE (about 16 percent of personal tax return filers).

EFILE substantially reduces the cost of tax administration. It offers the Department opportunities to streamline its operations, to reduce the cost of entering information from tax returns into its computer files, to reduce keying errors and arithmetical errors on tax returns, and to reduce its storage requirements. Human resources can be redeployed to other activities and the paper burden is reduced.

The EFILE case portrays some of the important elements in selecting a project. The project fitted a business case: most of

us need to file tax returns and it is easier to do this electronically. Some re-engineering took place; for example, receipts no longer have to be filed and the computer reviews tax returns. The Department developed EFILE in co-operation with private sector organizations such as the telecommunications industry, developers of tax preparation software, and tax professionals.

8.43 The potential benefits of electronic data interchange and other types of electronic commerce technology are substantial for government. While there has been some progress, the government has been slow to realize the benefits of EDI, especially in the areas of procurement, payments and revenue collection. Another dimension is also worth considering. The costs for certain types of IT development are prohibitive for the private sector if the market is not large enough to support a return on the investment. As one of the largest potential EDI users in Canada, the federal government, by selecting a standard for EDI processing, can help set a national standard for electronic commerce across Canada and help promote private sector investment.

Partnerships

8.44 The CANARIE project is designed to put the infrastructure for the information highway in place. The Silver Dart Project illustrates the type of government or private sector project that will use the highway.

The Silver Dart Project, named after the aircraft that in 1909 made the first powered, controlled flight in Canada, is attracting the attention of students, the general public, and museums around the world. Launched by the National Aviation Museum in November 1993, this

The government has been slow to realize the benefits of EDI.

multimedia kiosk system is an electronic encyclopedia that allows users to browse through images of airplanes in the museum's collection, see video clips of them in action and hear the roar of their engines. A wide area network (WAN) will allow remote access to the collection, and this will be the first time in North America that a multimedia system with full-motion video will be put on a high-speed WAN.

A remarkable feature of the project is the number of partners from both the public and the private sectors who collaborated on its development. The development time and costs, and the resulting risks, were reduced by using industry-standard equipment and software at each step of the design process. In four months, the Museum had the first version of a system that it could not have afforded to build on its own. The interest of private sector companies in a project using digital video servers and data base technologies led to a partnership of private and public sector organizations who worked together to

make the collection "come alive" (see Exhibit 8.3).

Process re-engineering and cultural change

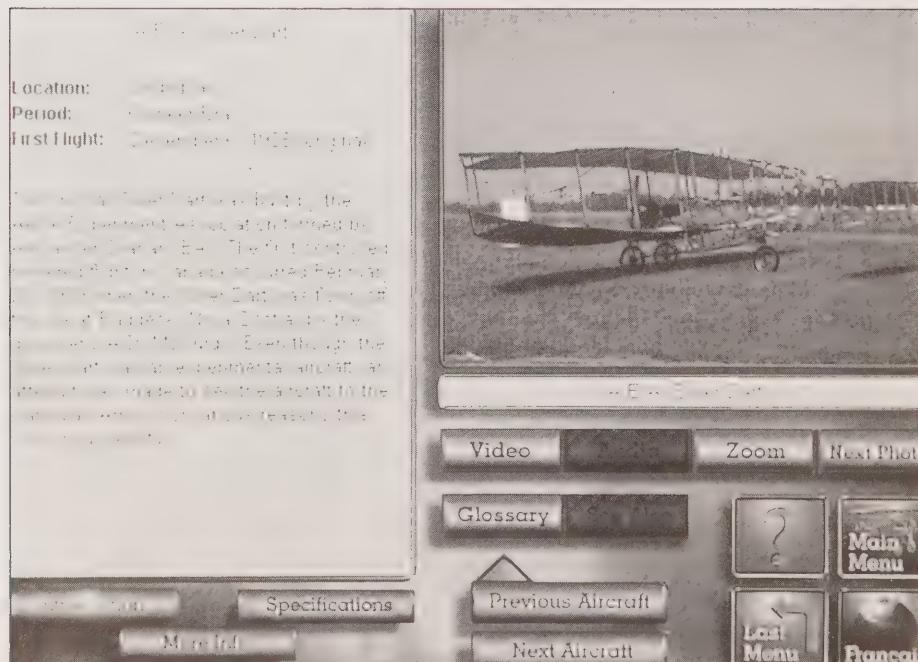
8.45 Process re-engineering evokes images of radical change being made through designing entirely new processes. Process redesign simply looks at existing procedures and decides if they are necessary or if the whole process should be discarded. If a procedure is not necessary, the process is redesigned without it. If the process is needed, it is redesigned to work more efficiently.

8.46 An essential element of redesign is benchmarking, or establishing measures of performance. As auditors, we expect that measures of performance would be developed and reported to management to provide information on how well projects are progressing and achieving their intended benefits.

8.47 The surrounding business processes must be rethought before manual processes are automated or a

Exhibit 8.3

Making the Silver Dart Fly



system is upgraded. A large part of what this revolution in IT is all about is cultural change, a change in mind-set based on a re-examination of how government operates and a reassessment of who its clients are. One of the business redesign themes of the Blueprint is the "single window" concept. The Canada Business Service Centre concept is one of the government's initiatives to move toward a "single window" concept.

The Canada Business Service Centre (CBSC) is an example of process re-engineering: organizations working together, providing a single, integrated, common service. This initiative is a collaborative effort of many federal departments, provincial governments and the private sector.

A convenient single-window access point makes it easier for businesses to deal with government. The program responds to frustrations expressed by business clients about the number and duplication of federal and provincial government programs, services, regulations and other business-related information. A network with at least one Centre in a major urban area of each province was in place by the summer of 1994.

Centres offer a variety of products and services tailored to assist clients in quickly obtaining accurate and comprehensive information directly or through information officers. With automated call-in and dial-demand service, clients can use their touch-tone telephones seven days a week, 24 hours a day for access to the condensed information from the

Business Information System. This information describes services, programs and regulations, and highlights responsible departments or organizations with whom the client may wish to communicate. Some offices also offer an automated voice response system that provides a menu of information on frequently asked questions. For more in-depth enquiries, Business Centres plan to establish collections of information on business products and research capabilities, in the form of interactive diagnostic software, videos, publications, business directories, how-to manuals, CD-ROM products and external data base access.

Sharing facilities with the provinces can save money and allow businesses to cut through the confusing maze of government bureaucracy and find an answer to their information needs under one roof.

8.48 Re-engineering poses some special challenges in the public sector. Federal programs are mandated by Parliament, and changes require consultations with many different interest groups. The next hurdle is an open and fair procurement process, which takes much longer in a government environment. In the meantime, the technology underlying the re-engineering project may become obsolete or dated, especially in projects that span several years. The bureaucracy, if not consulted adequately, can also resist change. Responding to these challenges requires sensitivity to the problems, and leadership that encourages education and training.

Re-engineering poses some special challenges in the public sector.

Managing the Project Well

Re-engineering,
requires a “people”
plan for managing
workplace change.

Some critical elements of good IT project management that we would expect to find:

- Previous experience with similar projects.
- Processes for quick decision making, funding and procurement.
- Projects with short-term delivery dates (a project due for delivery in five years will most likely be obsolete by the time of completion).
- Larger projects divided into modules with short-term deliverables.
- A team with the right mix of business and technical skills to get the job done.
- Team continuity throughout the project, especially at the level of project leader and manager.
- Plans for the management of change.
- Plans to meet the training and development needs of staff.

8.49 “High tech” government is inevitable, but the benefits it promises may not be. Rapid changes in information technology create an increasingly complex and risky environment. Integrating dozens of software products in a complex, distributed, network environment gives rise to new kinds of problems and project risks. Government must focus on managing the risks associated with information technology.

8.50 Risk and impact assessments of projects or ongoing project monitoring will be expected for all IT activities. Assessment and monitoring are two of the

tools needed by government to deliver projects that meet user needs on time and within budget. These tools must also yield the information needed to determine when to continue, or when to end projects that are no longer beneficial.

8.51 The range of government initiatives, from small micro-computer applications to multimillion-dollar mainframe and telecommunications applications, makes it unrealistic to establish one set of rules for all projects. However, the development of high-risk, major computer systems merits special attention. There is no “magic formula” for delivering successful systems. But recognized guidelines based on proven management principles give major projects a more than reasonable chance of being delivered on time and within budget, while meeting users’ needs. While an adaptive approach using selected components of a systems development methodology may be acceptable for small pilots or medium-sized projects, project management and control issues are critical for major capital projects.

Change management issues

8.52 Realizing the benefits that information technology can generate, when it is used as a catalyst for re-engineering, requires a “people” plan for managing workplace change. The elements of that plan are full, continuous, open information on business goals and expected results; worker consultation and counselling; career review and planning for education in new skills; and meaningful and responsive methods for dealing with worker suggestions and concerns. Most people are open to change; they are, however, slow to adapt to change unless they see themselves reflected in it. They will often respond with amazing speed if they see their work becoming more meaningful. People want

to know that they can make a difference. Learning about change through rumours or the media is one of the major contributors to low staff morale. It is management's responsibility to deal with technological change in a forthright, honest and genuinely open manner and to prevent the often negative effects of the information "grapevine".

8.53 In today's world, rapid change is the norm. Government employees in the past could depend on stable processes as a key to job security. Now, the need to assess existing processes in terms of usefulness and value is changing the workplace and the skills people need for success. The education and skills of public servants must be constantly upgraded and adjusted to keep pace with the realities of today's workplace. Employee involvement in the change process is essential. Employees must also recognize that they have a personal responsibility to acquire new skills with the help of the employer.

8.54 Because information technology can often result in dramatic changes, the government must recognize the importance of managing the effects these changes will have on its employees. The change management challenge is to ensure that there are appropriate methods and support systems to facilitate transition. As an employer, government must communicate clearly and often about what is to be changed, and provide training, support and leadership to help employees through the transition. It must also recognize the extent to which change has already had an impact on people's attitudes, expectations and levels of technical competence.

The Income Security Program Redesign at Human Resources Development Canada is one of the largest redesign projects under way in government. Specific

objectives of the redesign are maintenance and improvement of client services, security and accuracy of information, flexibility and responsiveness of program delivery processes, and operational efficiency.

Existing procedures and tools for delivering benefits under the Canada Pension Plan, Old Age Security, Guaranteed Income Supplement and Child Tax Benefit programs make it impossible for employees to provide the levels of service already demanded by clients, or to deal with an expected 40 percent increase in demand over the next 15 years. While employees now dealing directly with clients can accept applications, queries and data, they rarely can provide an immediate response. Transactions pass through many hands; sometimes they are processed many times and can take several weeks to complete. Moreover, the programs are supported by a number of computer systems, some a quarter of a century old. Lack of integration and the age and design of the programs make them difficult to maintain, expensive to operate and virtually impossible for users to work with by direct access.

The redesign involves people, organizations, structures, processes, systems and communications. Only 30 percent of the costs for this change are technology-related. Management of this project is particularly concerned with client outcomes, doing it right the first time, providing good client service and ensuring that the right tools are in place to do the job.

The managers of this project have not underestimated the need to manage changes resulting from the re-engineering process. They recognize that it is just as important for the employees to "buy into" the project as it is for the clients. Improving communications systems and

People want to know that they can make a difference.

The education and skills of public servants must be constantly upgraded and adjusted to keep pace with the realities of today's workplace.

We view our role as helping government to minimize the negative impact of change and to realize value for money from its investment.

issuing timely news bulletins and information brochures to keep the staff informed and involved in the process have been a priority. There are detailed plans for the assessment of development needs and the implementation of training programs for staff. The new system is designed to empower the employees to make more decisions and take more responsibility, thus speeding the service to clients.

The system is being delivered in stages. Availability of the complete system is expected in 1997. As improvements are made in client service, annual operating costs are expected to decrease and significant savings are expected from reductions in numbers of incorrect payments. Cost avoidance (the difference in cost between the old and new ways of doing business) over 15 years is estimated by the Department to be about \$1.8 billion, compared with a total project cost of \$285 million.

8.55 To be successful, a learning government has to be courageous enough to try new methods, at the same time practising innovative human resource management.

Future Audit Plans

8.56 During a period of change, all organizations, including governments, must adapt in order to harvest the opportunities and potential benefits that come with change. Committed and progressive leadership is essential if government is to seize ownership and manage information technology to realize its vast potential. In the absence of leadership, the many challenges facing government will not be met.

8.57 During this time of change, we view our role as helping government to

minimize the negative impact of change and to realize value for money from its investment in people, hardware and software. Our priorities will be determined by the "best practices" we have identified. We expect that these practices will result in the identification of projects that will, upon successful implementation, provide the highest net benefits.

8.58 This role requires that we change our current approach to systems audit. Rather than audit completed systems, we will focus on data integrity, control, security and management issues as the system is being developed, to help eliminate the expensive process of addressing these issues once the system has been fully developed and implemented.

8.59 In keeping with this role, we have initiated a Systems Under Development study to review large, multimillion-dollar systems currently under development within government. Our audit criteria and methodology have been updated and revised to reflect feedback from both the Best Practices Symposium and the information technology community. During the next few months, the revised criteria and methodology will be used to assess a number of major systems under development at different points in the development process. The findings of this audit will be reported in 1995.

8.60 Our Systems Under Development initiative is centred on the major, multimillion-dollar system projects. We will also continue to audit smaller, less costly systems during the course of our normal audit work in departments, because the total expenditure on these smaller systems is greater than the expenditure on the major projects. The Systems Under Development methodology will become part of our

annual value-for-money work and we will continue to follow how well these projects are being managed and the level of risk to which they expose the government.

8.61 Over the next several years, we will be looking to the Chief Informatics Officer to provide the focal point for achieving the promised cost savings and improved services. We also expect that the current role of the internal audit function in government will change. In many organizations, the internal audit role is already seen as assisting the organization to avoid failure, rather than reporting failure after the fact. This advisory role for internal auditors requires that they be involved at each important phase of a major project. The key to success in using this approach is to involve internal auditors early enough in

the project so that critical findings can be reported in time to take corrective action.

8.62 In all our work, the focus will be on the use of technology as an effective tool to improve service delivery and to reduce program or operating costs. The use of best practices, effective project management and project selection criteria, and the extent to which project objectives and deliverables are achieved will be assessed as part of our ongoing monitoring and reporting program. We will know that this monitoring and reporting program has been effective and that the Office has made a difference if, over time, we can report that the risks to government have been reduced and that the potential gains from the implementation of information technology are being achieved across government.

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents

Volume Chapter

1	Introduction
1	Matters of Special Importance and Interest
2	Follow-up of Recommendations in Previous Reports
3	Other Audit Observations
4	Background on the Audit Process
	Appendices
A.	Auditor General Act
B.	Financial Administration Act – Extracts from Part X
C.	Reports of the Standing Committee on Public Accounts to the House of Commons
D.	Report on the Audit of the President of the Treasury Board's Report to Parliament: Tablings in Parliament for Parent Crown Corporations: Annual Reports and Summaries of Corporate Plans and Budgets
E.	Taking Stock of Special Operating Agencies – A Summary of Conclusions of Joint Public and Private Sector Steering Committee
	Studies
2	5 An Innovative Society and the Role of Government
3	6 Study of Key Federal Social Programs
4	7 Information for Parliament: Departmental Reporting on Sectoral Activities and Follow-up of 1992 Chapter on Departmental Reporting
5	8 Information Technology – Reaping the Benefits and Managing the Risks
	Audits
6	9 Science and Technology – Overall Management of Federal Science and Technology Activities
10	Science and Technology – Management of Departmental Science and Technology Activities
11	Science and Technology – The Management of Scientific Personnel in Federal Research Establishments
32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents (cont'd)

Volume	Chapter	
7	12	Aspects of Federal Real Property Management
8	13	Federal Management of the Food Safety System
9	14	Agriculture and Agri-Food Canada – Farm Income Protection
10	15	Atomic Energy Control Board – Canada's Nuclear Regulator
11	16	Correctional Services Canada – Custody of Inmates
	17	National Parole Board
	18	Correctional Services Canada – Supervision of Released Offenders
12	19	Environment Canada – Environmental Partners Fund
	20	Environment Canada – Ice Services
13	21	Foreign Affairs and International Trade Canada – Technical Assistance Contributions to Central and Eastern Europe and the Former Soviet Union
	22	Foreign Affairs and International Trade Canada – Financial Management and Control
14	23	Indian and Northern Affairs Canada – Social Assistance
15	24	National Defence – Defence Management Systems
	25	National Defence – Information Technology
	26	National Defence – Infrastructure Reductions
	27	National Defence – Infrastructure Management
16	28	Revenue Canada – Customs Assessment Activities
	29	Revenue Canada – Collecting Income Tax Debts
	30	Revenue Canada – Goods and Services Tax: Audit and Special Investigations
	31	Revenue Canada – Ensuring Fairness of the Income Tax System: Detection of Non-Filers and Special Investigations
	32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development
	33	Department of Finance and Revenue Canada – Tax Assistance for Retirement Savings
17	34	Public Works and Government Services Canada – Management and Operation of Crown-owned Office Buildings

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1994 Report of the Auditor General of Canada to the House of Commons

Volume 6 – Table of Contents

Chapter		Page
9	Science and Technology – Overall Management of Federal Science and Technology Activities	9–3
10	Science and Technology – Management of Departmental Science and Technology Activities	10–3
11	Science and Technology – The Management of Scientific Personnel in Federal Research Establishments	11–3
32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development	32–3

The audit work reported in this volume was conducted in accordance with the legislative mandate, policies and practices of the Office of the Auditor General. These policies and practices embrace the standards recommended by the Public Sector Accounting and Auditing Board (PSAAB) of the Canadian Institute of Chartered Accountants.

Chapter 9

Science and Technology

Overall Management of Federal
Science and Technology Activities

Table of Contents

	Page
Main Points	9-5
Introduction	9-7
Background	9-7
Significant resources are allocated to science and technology activities	9-7
Who spends the federal money and where is it going?	9-7
How much research and development is Canada doing compared with other countries?	9-8
Audit Objective and Scope	9-9
Observations and Recommendations	9-12
Deciding What to Do: A Long-standing Challenge	9-12
The government has committed itself to managing its science and technology portfolio more strategically	9-12
Previous efforts to implement a science and technology strategy have failed	9-12
Learning from the Past: Some Conditions for Future Success	9-16
There is an urgent need to set real priorities	9-16
Priorities are not enough — direction is also needed	9-17
The present science and technology review needs to provide a results-oriented action plan	9-17
Stakeholders must work together	9-18
A revised structure may be needed to oversee the government's science and technology portfolio	9-19
Sustained political will and leadership are needed to bring about change	9-19
The Government Must Know What Is Being Achieved	9-20
Evaluating results will be a challenge	9-20
What a framework to assess results should include	9-21
Parliamentarians and the Public Must Be Better Informed on Activities and Performance	9-22
There is no comprehensive reporting on federal science and technology activities	9-22
Parliamentarians have no basis to hold the government accountable for its spending on science and technology	9-23
Future Directions for Parliament	9-24
Parliamentarians could play an important role in the current science and technology review	9-24

Table of Contents (cont'd)

	Page
Exhibits	
9.1 Where Federal Science and Technology Money Is Going, 1993-94	9-8
9.2 Research and Development in Canada, 1993-94	9-9
9.3 Federal Science and Technology Expenditures, by Department and Agency 1993-94	9-10
9.4 Gross Domestic Expenditures on Research and Development and as a Percentage of Gross Domestic Product for OECD Countries	9-11
9.5 Major Science and Technology Reviews and Policy Initiatives: 1963-1994	9-13



Assistant Auditor General: *Robert R. Lalonde*
Responsible Auditor: *Richard Flageole*

Science and Technology

Overall Management of Federal Science and Technology Activities

Main Points

9.1 The government recently committed itself to managing its science and technology portfolio more strategically, announcing its intention to “put in place a true strategy, one with real priorities, real direction and a real review of results.” Previous efforts to do so in the last 30 years have failed.

9.2 There has been much activity but few results. Previous government-wide reviews have not produced results-oriented action plans that lay out priorities to meet Canada’s economic and social needs and opportunities. Some of this lack of progress can be attributed to a lack of overall government-wide leadership, direction and accountability for implementing desired changes.

9.3 While establishing real priorities will be difficult, it is essential. There are not sufficient resources to meet all needs. Government spending on science and technology must be focussed on areas with the greatest need, opportunity and potential pay-back. The challenge is to determine what these areas are and to then actually implement the necessary changes.

9.4 Successful development and implementation of a true strategy will require the joint effort of federal departments, provinces, industry and universities, and persistence and leadership by Cabinet. This may require a revised structure for science and technology in the federal government.

9.5 The government needs a framework and indicators to monitor Canada’s overall performance in science and technology and to determine the success of its own efforts to support science and technology. The indicators must reflect both the federal government’s objectives for its own agenda and larger national objectives that consider all public and private sector stakeholders in science and technology.

9.6 Parliamentarians have no basis on which to assess whether the government’s expenditures on science and technology reflect Canadian needs and opportunities, and to hold the government accountable for results.

9.7 Parliamentarians can play an important role in ensuring that an appropriate, balanced and workable science and technology strategy is developed and implemented.

Introduction

9.8 Not long ago, countries founded their economic development on their inherent comparative advantages, such as natural resources. In today's world, economic progress is measured by the ability to provide, at competitive prices, the variety of common and new products and services that global markets demand. This requires the ability to adapt and commercialize the results of science and technology.

9.9 Technology plays an important role in achieving economic goals in socially acceptable ways. People are now more aware of sustainable development. Companies soon will be expected to meet environmental standards in order to be competitive in the global economy, just as they are already expected to meet quality standards. Science and technology can help to meet environmental standards related to such things as mine tailings, forestry practices and industrial waste.

9.10 Economic growth is important to maintain and improve our standard of living. But science and technology go beyond contributing to economic growth; they contribute to our quality of life. For example, methods to test the food that we consume, means of improving the safety of our transportation modes and the technology available to improve health care quality are all supported by various activities in science and technology, in both the public and private sectors.

9.11 In many cases, it takes years before the discoveries from research are developed to the point where they are commercialized or incorporated in regulations. A nugget of new knowledge may lay dormant, perhaps for decades, until other advances in technology require that knowledge. Then it may become a

critical factor in technological advancement.

9.12 The federal government allocates a significant level of resources to science and technology activities. Its policies and the deployment of its resources influence Canada's ability to prosper through innovation. Effective interaction between the research community (including universities) and the private sector will contribute to Canada's economic well-being. Given the potential benefits and the extensive costs involved, the successful management of federal science and technology activities is of profound significance.

Background

Significant resources are allocated to science and technology activities

9.13 In 1993–94, the federal government spent approximately \$6 billion on science and technology activities. In addition, companies in the private sector claim approximately \$1 billion in tax credits each year for research and development. The expenditures of \$6 billion represented 11 percent of total government spending, excluding expenditures for such purposes as public debt charges and payments to persons and other levels of government.

Who spends the federal money and where is it going?

9.14 Federal science and technology funds are allocated primarily to federal organizations, industry and universities. Exhibit 9.1 provides a breakdown of science and technology expenditures for 1993–94, by performing sector. Federal organizations accounted for approximately 59 percent of total expenditures, employing approximately 35,000 people.

Science and technology go beyond contributing to economic growth; they contribute to our quality of life.

The federal government allocates a significant level of resources to science and technology activities.

9.15 Federal science and technology activities support a variety of missions and mandates, including health and safety, protection of the environment, communications and social and economic development. These activities are divided into two principal components: research and development, and related scientific activities.

9.16 Research and development refers to creative work undertaken in a systematic way to increase the stock of scientific and technical knowledge and to use that knowledge in new applications. Related scientific activities are those that complement or expand research and development by generating, disseminating and applying new scientific and technological knowledge. They include, for example, the gathering of scientific data through such means as geological and fisheries surveys, and the maintenance of meteorological records.

9.17 Of the \$6 billion budget for science and technology in 1993–94, the federal government spent approximately \$3.5 billion or 59 percent on research and development. Of that amount, \$1.7 billion was spent in federal organizations and the remainder was paid to outside parties. The federal government is consequently a

major player in Canadian research and development activities. Exhibit 9.2 shows who funds and who performs research and development in Canada.

9.18 Although almost 60 distinct federal organizations are involved in science and technology activities, 17 of them spend over 90 percent of the resources. The federal organizations spending the most on science and technology include the three granting councils (\$860 million), Environment Canada (\$666 million), the National Research Council (\$512 million), Natural Resources Canada (\$476 million) and the Canadian Space Agency (\$422 million). Exhibit 9.3 provides a breakdown of federal spending on research and development and related scientific activities for the 17 most important organizations, for 1993–94.

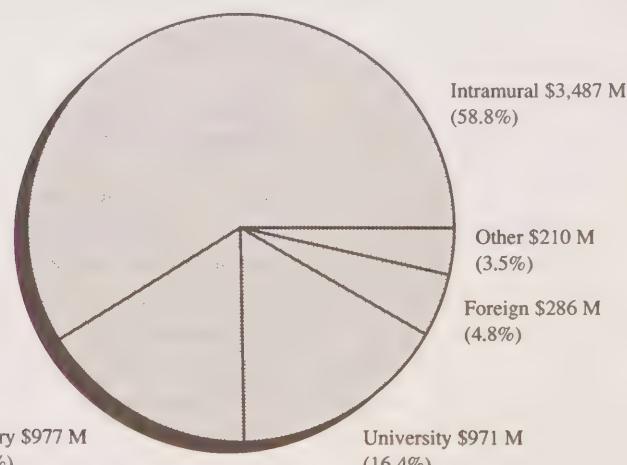
How much research and development is Canada doing compared with other countries?

9.19 The level of national expenditures on research and development as a percentage of gross domestic product is widely recognized as a significant indicator of the relative creative effort of a country. Exhibit 9.4 provides a comparison by the Organization for

Exhibit 9.1

Where Federal Science and Technology Money Is Going, 1993–94

Source: Statistics Canada



Economic Co-operation and Development (OECD) of research and development spending among its member countries for 1991. In percentage of gross domestic product, Canada ranked 14th among the 24 OECD countries; its effort in research and development was lower than that of all G-7 countries except Italy.

Audit Objective and Scope

9.20 The overall objective of the audit was to assess whether the federal government has established clearly what it wants to achieve with its science and

technology activities and whether the activities are managed in a way to yield maximum return.

9.21 In our 1981 audit of research and development activities, we focussed on the management of activities in specific departments and agencies. For this audit, we adopted a broader approach, in which we also examined the central machinery in place for the overall direction and co-ordination of federal efforts, the management of scientific personnel and the provision of tax incentives to industry for research and development. We did not examine how grants and contributions for

Who Funds Research and Development

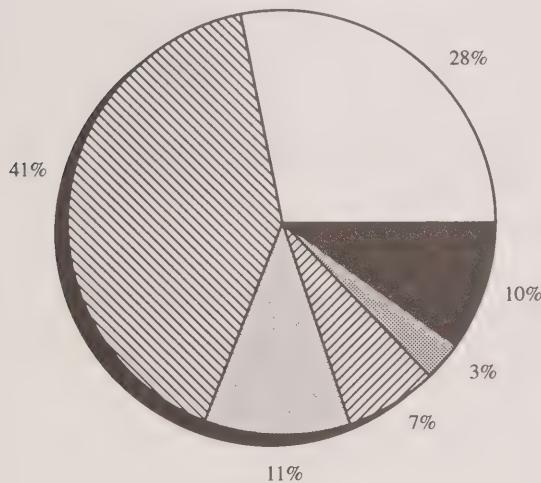
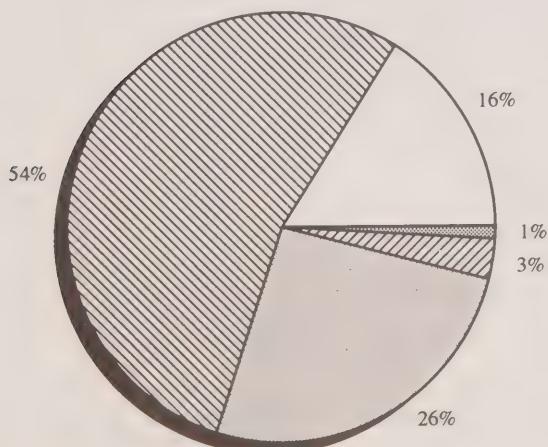


Exhibit 9.2

Research and Development in Canada, 1993-94

Who Performs Research and Development



Federal	[white box]
Industry	[diagonal lines box]
University	[light grey box]
Provinces	[cross-hatch box]
Other	[dotted box]
Foreign	[dark grey box]

Source: Statistics Canada

science and technology are administered by the three granting councils and by government departments and agencies.

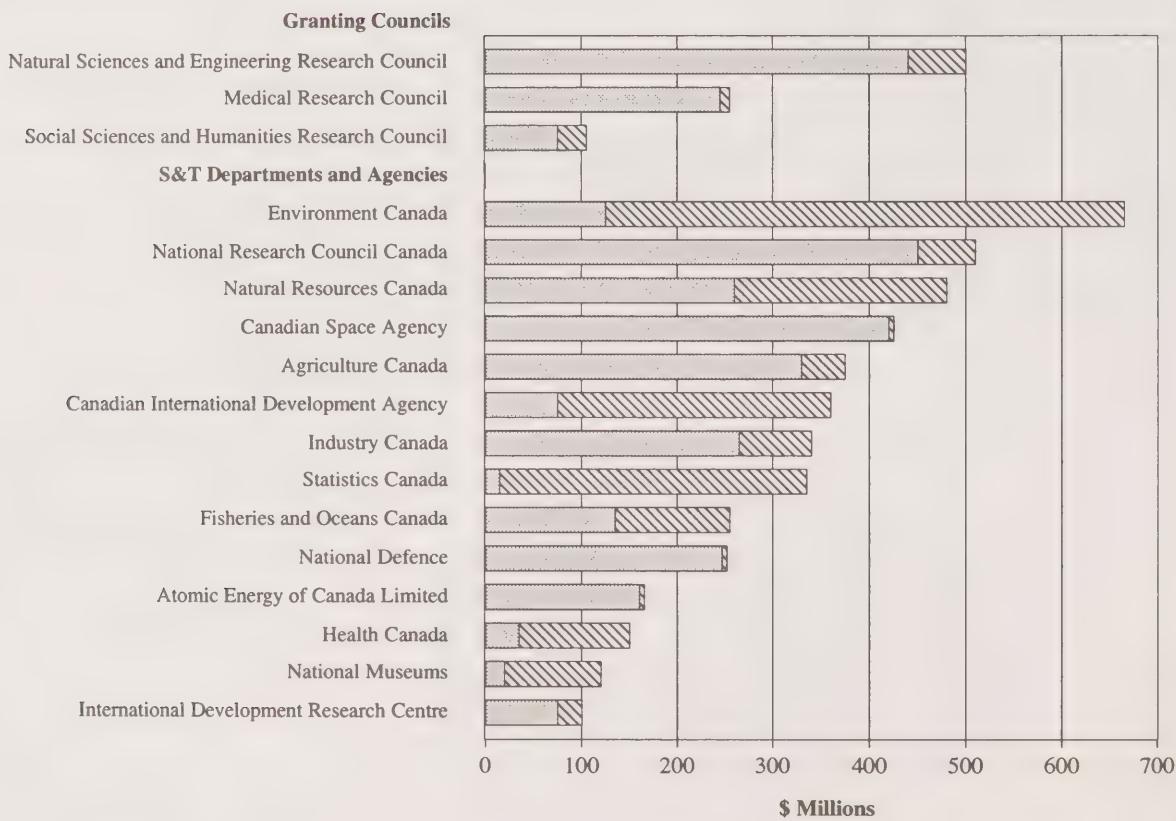
9.22 The results of our audit are presented in four interrelated chapters. This chapter outlines our conclusions on the federal government's overall management of science and technology activities and addresses some government-wide issues. Chapter 10 describes our audit of the management of those activities in a sample of federal departments and agencies. Chapter 11

deals with the management of scientific personnel. Finally, our observations and recommendations on the program of tax incentives for scientific research and experimental development are presented in Chapter 32.

9.23 In this chapter we report on the mechanisms used to establish priorities and direction, to co-ordinate activities among the various stakeholders, to measure results and to inform Parliament on the overall performance of the government in managing its \$7 billion

Exhibit 9.3

Federal Science and Technology Expenditures, by Department and Agency 1993-94



Source: Statistics Canada

Related Scientific Activities

Research and Development

annual investment in science and technology. Overall, we expected to find strategic direction, priorities and co-ordination of federal science and technology activities. We also expected to find that results from these activities were assessed and communicated to Parliament

in a timely manner. The audit observations and recommendations in this chapter are consequently addressed to the federal government as a whole and not to any of its specific departments or agencies. Since no specific department or agency is responsible for the overall

International R&D Spending 1991

	GERD US \$ M*	GERD/GDP Percent
Sweden	4,186	2.90
Japan	67,349	2.87
Switzerland	3,849	2.86
United States	154,348	2.75
Germany	35,563	2.66
France	25,033	2.42
United Kingdom	18,735	2.08
Finland	1,617	2.02
Netherlands	4,750	1.91
Norway	1,315	1.84
Denmark	1,535	1.69
Belgium	2,752	1.69
Austria	2,043	1.51
Canada	7,783	1.50
Australia	3,671	1.34
Italy	12,899	1.32
Ireland	420	1.04
Iceland	420	1.04
New Zealand	399	0.88
Spain	4,337	0.87
Portugal	502	0.61
Turkey	884	0.47
Greece	369	0.46
Luxembourg	**	**

Exhibit 9.4

**Gross Domestic Expenditures
on Research and
Development and as a
Percentage of Gross
Domestic Product for OECD
Countries**

G-7 Countries



GERD — Gross Expenditures on Research and Development
GDP — Gross Domestic Product
OECD — Organization for Economic Co-operation and Development

* adjusted by OECD to obtain what it calls Purchasing Power Parity (PPP)

** data not available

Source: Resource Book for Science and
Technology Consultations —
Industry Canada (1994)

policy direction and co-ordination of science and technology activities, we were not provided with responses to our recommendations. We expect the government to address our recommendations as part of the federal science and technology review currently being carried out, and described in paragraphs 9.24 to 9.27 of this chapter.

“After years of rhetoric and promises, the federal government will put in place a true strategy for R&D, one with real priorities, real direction, and a real review of results.”
(Canada’s Minister of Finance in the Budget speech – February 22, 1994)

science and technology activities. The purpose of the review is to “help determine how federal spending in science and technology can best be applied to creating economic growth and jobs within the context of sustainable development, enhancing the quality of life and advancing knowledge.”

Observations and Recommendations

Deciding What to Do: A Long-standing Challenge

The government has committed itself to managing its science and technology portfolio more strategically

9.24 The need to improve our economic performance and to create jobs was a major issue in the last federal election. Canada’s lagging performance in using science and technology to these ends, as well as the lack of strategic direction and focus for the government’s efforts, were particularly noted.

9.25 In the February 1994 Budget speech, the government committed itself to managing its science and technology portfolio more strategically, announcing its intention to “put in place a true strategy, one with real priorities, real direction and a real review of results.” The Minister of Industry was asked to put forward a paper on science and technology, clearly stating the government’s priorities, to set the stage for an intense national dialogue leading to a new national strategy.

9.26 On 28 June 1994, the Minister of Industry and the Secretary of State for Science, Research and Development launched a major review of federal

9.27 The review has three main components: an internal review of activities of federal departments and agencies; an independent assessment by the National Advisory Board on Science and Technology; and consultation with interested Canadians. An Interdepartmental Secretariat has been established in Industry Canada to co-ordinate the process. Three task groups are responsible for the internal review, focussing respectively on wealth and job creation in the context of sustainable development, the enhancement of quality of life and the advancement of knowledge. The task groups comprise representatives from federal departments and agencies conducting science and technology activities in these fields. The review is planned for completion in early 1995.

Previous efforts to implement a science and technology strategy have failed

9.28 The issues of strategy, priorities, direction and results of science and technology activities are not new and this is not the first time the government has attempted to resolve them. In fact, they have been subjects of discussion and controversy for more than three decades. Exhibit 9.5 provides a brief summary of some of the numerous past studies and initiatives that dealt with the matters currently being addressed by the government. Considering its track record, we believe that the government faces a tremendous challenge in developing and

implementing a new science and technology strategy.

9.29 Policy direction, priorities and co-ordination of federal science and technology activities were addressed extensively in the 1963 report of the *Royal Commission on Government Organization* (Glassco). The Commission noted the government's lack of vision for those activities and criticized the central

machinery then in place for policy determination. It raised serious concerns about the lack of co-ordination and the piecemeal expansion of government scientific activity after the end of World War II, and concluded that Canada's scientific policy at the time was the result, not the cause, of growth in the many scientific activities undertaken by government.

1963	Report by Royal Commission on Government Organization (Glassco)
1964	Creation of Science Secretariat in the Privy Council Office
1966	Creation of Science Council of Canada
1968	Science Council issued "Toward a National Science Policy for Canada"
1969	Medical Research Council (MRC) established as a separate entity
1970–77	Reports by Senate Special Committee on Science Policy (Lamontagne)
1971	Creation of Ministry of State for Science and Technology (MOSST)
1978	Creation of Natural Sciences and Engineering Research Council (NSERC)
1978	Creation of Social Sciences and Humanities Research Council (SSHRC)
1984	Wright Report
1985	Government issued Nielsen Task Force report on science and technology
1987	National S&T Policy approved by federal, provincial and territorial governments
1987	Creation of Council of Science and Technology Ministers (CSTM)
1987	Approval of S&T Strategy and Decision Framework by federal government
1987	Creation of National Advisory Board on Science and Technology (NABST)
1988	MOSST merged as a branch into Department of Industry, Science and Technology
1989	"The Halifax Declaration: A Call To Action" issued by National Forum of Science and Technology Advisory Councils
1990–94	NABST issued a series of reports, including: <ul style="list-style-type: none"> ● Lortie Report (1990) — focussed on management of federal labs ● Nicholson Report (1991) — focussed on need for Canada to change ● Janson Report (1993 and 94) — focussed on S&T priorities
1991–92	Reports issued by government's Prosperity Initiative — addressed S&T challenges
1992	Closure of Science Council of Canada
1993	"MOSST Branch" fully integrated into new Department of Industry
1994	Government announced S&T review in February 1994 Budget speech

Exhibit 9.5

Major Science and Technology Reviews and Policy Initiatives: 1963 –1994

Considering its track record, the government faces a tremendous challenge in developing and implementing a new science and technology strategy.

9.30 Following the Glassco Commission, a Science Secretariat was established as part of the Privy Council Office in 1964. Then, in 1966, the Science Council of Canada was established. In 1968, the Council issued a discussion document entitled *Toward a National Science Policy for Canada*, proposing a series of national objectives and a structure for organizing new undertakings in Canadian science. The debate on science policy continued.

9.31 In 1967, under the chairmanship of Senator Maurice Lamontagne, the Senate Special Committee on Science Policy launched a thorough examination and assessment of science and technology in Canada. The Committee addressed many of the questions being reviewed today. It made 45 recommendations regarding targets and strategies and 27 additional recommendations for the organization of federal science and technology activities.

9.32 In brief, the Committee called for both sectoral science policies and an overall science policy that would encourage industrial innovation and contribute solutions to social problems. It also stressed the need for evaluating federal scientific research to enable the government to maximize the return on its investment and shift resources to new needs and opportunities as they present themselves. It concluded that a coherent organizational system must replace the conflicting pattern of responsibilities then in place.

9.33 A number of the recommendations of the Lamontagne Committee regarding the organization of government were acted on throughout the 1970s. In 1971, the government appointed a Minister of State for Science and Technology, who was made responsible for the overall formulation of

policy and co-ordination of activity. During that period, the government also established the Natural Sciences and Engineering Research Council and the Social Sciences and Humanities Research Council as separate entities.

9.34 Between 1971 and 1983, the Ministry of State for Science and Technology made various unsuccessful attempts to elaborate some kind of science and technology policy. However, no clear science policy was put in place and the government's efforts were still piecemeal.

9.35 In the years following the 1984 election, there was a concerted effort to develop a science and technology policy and strategy. Numerous reviews and consultations took place from 1984 to 1991. A key advancement was the signing of the National Science and Technology Policy in March 1987 by the federal, provincial and territorial governments. A Council of Science and Technology Ministers was also established to serve as a consultation and co-ordination mechanism between the two levels of government.

9.36 In the same year, the federal government issued a document called *InnovAction – The Canadian S&T Strategy*, which identified five key sectors for intervention. It also issued a document known as *A Decision Framework for Science and Technology*, which outlined principles, objectives and guidelines for the management of federal activities, the roles of federal players and a process for annual reporting to Cabinet on science and technology activities.

9.37 It was also in 1987 that the National Advisory Board on Science and Technology (NABST) was created to advise the Prime Minister on the government's overall policies and priorities in science and technology. Members are leaders in the business,

education and labour communities. The Board was, and still is, chaired by the Prime Minister. In 1988, a new department, Industry, Science and Technology Canada, was formed by merging the Department of Regional Industrial Expansion with the Ministry of State for Science and Technology. Another organizational move in the late 1980s was the formation of a House of Commons Standing Committee on Research, Science and Technology.

9.38 Another important development came in August 1989 with the release, by the National Forum of Science and Technology Advisory Councils, of a document entitled *The Halifax Declaration: A Call To Action*. That document laid out five broad issues where common action was needed. The Council of Science and Technology Ministers subsequently issued, in 1991, a *National Science and Technology Framework for Action*. It was aimed at providing direction for meeting science and technology imperatives and proposed a long-term action plan that identified specific goals and fundamental principles to guide government efforts. It also noted that a range of indicators must be in place to assess those efforts and to measure progress, and it proposed specific indicators of inputs and outputs.

9.39 Parallel to those initiatives, the National Advisory Board on Science and Technology issued a series of reports addressing various strategic and organizational issues. One of the reports, *Revitalizing Science and Technology in the Government of Canada* (the Report of the Committee on Federal Science and Technology Expenditures, known as the Lortie report), made 40 recommendations regarding the organization, financing and evaluation of federal laboratories.

9.40 With all the efforts in the last 30 years to provide some overall direction and to streamline the management of its science and technology activities, it would be reasonable to expect the government to be able to enunciate clearly what it is trying to achieve through those activities and to direct its efforts in a way to yield maximum return. Unfortunately, this is not the case.

9.41 In a report this year on federal science and technology priorities, the National Advisory Board on Science and Technology noted that there was no evidence of an explicit rationale for the allocation of science and technology spending among departments and agencies. The Board was unable to find a rational explanation for why individual budgets were at particular levels or why one organization's budget was larger than another's. It appeared to the Board that certain departments and agencies had benefited from historical incrementation in their budgets. Our audit findings clearly support the Board's conclusion. The present allocation of funds among various fields of science and technology is more incidental than the result of a well-formulated strategy.

9.42 There has been much activity but few results, although the 1987 strategy and decision framework have contributed to the achievement of some desirable results. For example, federal departments and agencies have worked more closely with industry and have increased their revenue levels. Many industry-based advisory boards have also been created.

9.43 However, the framework is far from being implemented in departments and agencies. For example, one of the thrusts in the 1987 framework was to devolve the in-house performance of science and technology to the private sector and universities. Yet we observe

The present allocation of funds among various fields of science and technology is more incidental than the result of a well-formulated strategy.

that the proportion of total federal science and technology resources spent in-house decreased only from 60 percent in 1987–88 to 59 percent in 1993–94; in our view, this does not reflect the spirit of the desired shift expressed in the 1987 decision framework.

9.44 Some of this lack of progress can be attributed to a lack of overall government-wide leadership, direction, focus on results and accountability for implementing desired changes. As we point out later in this chapter, Industry Canada is not well positioned to provide effective leadership among departments with science and technology responsibilities.

Learning from the Past: Some Conditions for Future Success

9.45 We fully support the government's announcement in the February 1994 Budget speech that it will put in place a strategy for research and development with real priorities, real direction and a real review of results. Governments in many industrialized countries are faced with this challenge. All international and national economic indicators show that time is of the essence. If Canada is to maintain its economic well-being, the government must, after 30 years of trying, succeed this time. Past efforts have revealed several lessons for the current science and technology review and the future implementation of a strategy — lessons that we believe are important and that are presented in this section of the chapter.

There is an urgent need to set real priorities

9.46 As noted in paragraph 9.19, Canada has only modest resources to invest in science and technology, compared with many other developed

countries. With the emergence of new players in the Pacific Rim and elsewhere, Canada will probably be doing even less of the world's research in the future. Under these conditions, it is essential that our resources be invested in a way that will yield maximum return. As stated previously, this is not the present case.

9.47 We believe that it is time to address specific questions and issues. For example, if the government wants to use science and technology as a means of generating wealth and creating jobs, it should consider focussing its investment in those sectors of the economy that are the most promising in terms of potential value added by federal science and technology activities. The government should clearly understand the functioning of our innovation system, our challenges to remain competitive, and the needs and opportunities it can address given its strengths and particular capabilities. The most cost-effective means of making the desired difference must then be selected and their economic impact demonstrated clearly.

9.48 Although the need has long been recognized, the government has not been able to do these things in the past. However, we believe that with the right leadership, discipline and framework, it would be possible for the government to institute methods and processes for making the necessary tough choices across and within federal departments and agencies.

9.49 To be able to make valid choices, the government must be clear about what it wants to achieve. A lack of focus at the government-wide level contributes to a lack of focus in departments and agencies. As we report in Chapter 10, our audit of selected science and technology organizations identified a need for improved understanding of needs and

sectoral opportunities. This understanding requires the joint effort of scientific and non-scientific groups in departments and agencies with science and technology programs, and collective effort by departments, including the Department of Finance and the industry sector units in Industry Canada. Science and technology are only a means to achieving broader social and economic objectives. Chapter 10 also reports that science and technology organizations need to have clearer goals and priorities. We believe that establishing priorities at the government-wide level would contribute to their achievement within departments and agencies.

9.50 In summary, determining real science and technology priorities will require addressing fundamental questions such as: What are the greatest needs and opportunities? Where must the government be involved and why? Where should and could the government be involved and why? What should and could the government's involvement be? Without answers to these questions, the current review is unlikely to provide the government with a true strategy. Furthermore, we would expect to see the strategy identify priorities at the government-wide level as well as the sectoral level.

Priorities are not enough — direction is also needed

9.51 A true strategy will also provide direction with regard to who will do what, how the desired results will be achieved and when. While this touches on the mandates of departments, there is a need for top-down, government-wide direction. For example, if environmental technology is selected as a priority for generating wealth and for government involvement, direction is needed on how

the government intends to harness the necessary expertise and resources in departments and agencies such as Agriculture and Agri-Food, Environment, Fisheries and Oceans, National Research Council and Natural Resources. Collective effort cannot be assumed without central direction from the government.

9.52 In the past, science and technology policy directives have been issued without adequate direction for implementing them. For example, in Chapter 10 we comment on departments' pursuit of collaborative arrangements and revenue. The absence of government-wide guidelines and criteria has contributed to departments being involved in activities that we believe they should question.

9.53 The lack of adequate direction in the past has also slowed the implementation of change. In Chapter 10 we report that departments are making efforts to improve their relevance and impact. However, there is still much progress to be made. A strategy with real direction is needed to accelerate the desired changes and improvements. The situation needs continued study, such as the National Advisory Board on Science and Technology has carried out, but follow-up action and direction are necessary to produce results.

The present science and technology review needs to provide a results-oriented action plan

9.54 The 1987 strategy and decision framework established several policy objectives, such as the devolution of in-house science and technology to industry and universities. However, it did not establish explicit targets. As reported in paragraph 9.43, the actual results achieved to date do not reflect the spirit of

The government must realize that there are things that it must do, should do, and could do. The challenge is to decide what they are.

The government needs to establish results-oriented targets at the government-wide level.

Departments and agencies need to work together as a team to address overall requirements rather than their own particular interests.

the framework; we believe the absence of targets has been a contributing factor.

9.55 As we report in Chapter 10, we came across numerous situations where the expected results of science and technology programs are defined in such general terms that they do not create a sense of urgency in the performers and do not provide a basis for accountability. We also report in Chapter 32 that the Department of Finance has not yet evaluated the impact of its \$1 billion annual tax incentives to industry for scientific research and experimental development. As for priorities, focussing on results at the government-wide level will contribute to the achievement of results at the departmental level.

9.56 We conclude that if the government intends to achieve real results from its investment in science and technology, then it needs to establish results-oriented targets at the government-wide level. This needs to be one of the outcomes of the current science and technology review. For example, if the government wishes to emphasize the development and export of environmental technology-related products and services, then it should establish realistic targets and measure progress against these targets. Past efforts have focussed on inputs (expenditures), processes and activities.

Stakeholders must work together

9.57 The need for stakeholders to work together is not new. In the early 1970s, the Lamontagne Committee recommended that the government establish a central mechanism based on a “concerted action” model whereby central agencies work in partnership with line departments and agencies.

9.58 We believe that one of the reasons why the 1987 effort did not work was that departments and agencies did not support it because they were not an integral part of the exercise. It did not reflect their ideas and concerns but was a central agency product. This time, departments and agencies have been asked to be part of the review process. For the exercise to succeed, departments and agencies need to work together as a team to address overall requirements rather than their own particular interests.

9.59 The 1987 policy clearly recognized the need to also take into account the priorities of the federal, provincial and territorial governments in science and technology. It recognized the need for governments to work in greater harmony and to co-ordinate their efforts more closely. An important mechanism to ensure such co-ordination was the creation of the Council of Science and Technology Ministers; however, it has not met for almost two years. We have been informed that the current phase of the federal review will be extended to the national level and will provide for formal federal-provincial dialogue. We believe that such policy consultation and co-ordination with provinces is an important condition to avoid disharmony and duplication of effort.

9.60 Collaboration among federal departments and with the provincial governments is not enough for science and technology efforts to succeed. Industry and universities must be involved to a great extent. Consultations must include discussion of sectoral needs and opportunities if the government expects to put in place a strategy that has real priorities and real direction.

9.61 Everyone agrees that team effort is essential. In our view, the government cannot assume that stakeholders will work

together without concerted and persistent effort from the very top.

9.62 The federal government should ensure that:

- the new federal science and technology strategy is the result of a concerted effort among all stakeholders; and
- the strategy provides for a mechanism to encourage congruence of policies, goals and strategies among all stakeholders and to minimize duplication of effort.

A revised structure may be needed to oversee the government's science and technology portfolio

9.63 It is important that there be an effective mechanism for overseeing the government's science and technology portfolio. The mechanism is required to perform such roles as leading the development of government policies; leading government-wide reviews and priority-setting exercises; preparing an annual report to Parliament; and monitoring overall trends, performance and results.

9.64 The required mechanism needs to be credible to central agencies and line departments and agencies, and to be linked into the decision-making and resource-allocation processes. It should also take into account the line authority that ministers have over the activities in their departments. There may be some merit in the Lamontagne Committee's conclusion that the delivery of science and technology programs should remain diffused among departments and agencies, rather than centralized into a "super Science and Technology department".

9.65 The Canadian government has made several attempts to establish co-ordinating mechanisms for

government-wide science and technology policies and priorities. The inherent drawback of these mechanisms is that they either are not part of the government decision-making and resource-allocation processes or are the responsibility of a department such as Industry Canada, which itself is involved in the delivery of science and technology programs. The result has been that the central science and technology agencies have not been held in high regard.

9.66 Other countries have adopted various models. It is not the role of this Office to tell the government how it should organize itself to manage. However, the matter is becoming more and more important as the government makes science and technology a priority while its fiscal pressures continue to increase.

9.67 The government should put in place an effective framework to co-ordinate the activities of departments and agencies in achieving the intended results of its new science and technology strategy.

Sustained political will and leadership are needed to bring about change

9.68 We found that one of the key factors that contribute to making government laboratories and science and technology programs successful is having executives who are persistent and provide leadership. Persistence on the part of management ensures that there is continuous improvement and repeated effort to make research and development activities relevant and focussed, and that accountability is not only established but practised and enforced. Leadership by management provides vision and direction. In addition, we believe that politicians who oversee the government's involvement in science and technology

It is important that there be an effective mechanism for overseeing the government's science and technology portfolio.

must also be persistent and provide leadership.

9.69 The Canadian government has certainly demonstrated a strong will to make its involvement in science and technology more effective and relevant. However, that will has not been sustained over the years. Reviews and public consultations are announced with great publicity. The same applies when official reports are released. Unfortunately, this has been only at the start of the process. The results are yet to come.

9.70 As mentioned previously, government-wide science and technology reviews have not produced results-oriented action plans that lay out priorities to meet Canada's economic and social needs and opportunities. The fact that there has not been concerted follow-through on the reviews has exacerbated the situation.

9.71 In 1994, the government committed itself to specific goals related to science and technology. Cabinet will need to be persistent if the outcome of the current review is to reflect those goals. Leadership that transcends governing departmental mandates is required.

9.72 We support the view that a government-wide science and technology review and priority-setting exercise should be carried out regularly. Again, however, this will require leadership that transcends governing mandates. Changes need to be made in the context of a long-term view. Research and development cannot be turned off and on. It can take years to develop capable teams and to transfer discoveries for application by industry and regulators.

The Government Must Know What Is Being Achieved

9.73 The government's commitment to set real priorities, provide real direction and focus on results will require significantly better information on planned and actual results than is currently available.

9.74 On a government-wide basis, the currently available information comprises the expenditure and activity-oriented information reported in Part III of the Estimates presented to Parliament, and statistics that focus on important overview information such as expenditures, number of scientists and number of alliances. Such information does not provide a basis for assessing performance and setting real priorities.

Evaluating results will be a challenge

9.75 Establishing meaningful performance targets and evaluating results of science and technology will be a challenge. Many of the desired results might become evident only after a number of years. It is often difficult to make the connection between the outcome of a research project and, for example, the creation of jobs. Other countries face the same challenge.

9.76 Our audit revealed that the significant amount of analytical work conducted over the years by various federal organizations has provided a basis for evaluating results of science and technology. At the departmental level, organizations such as CANMET at Natural Resources Canada and the Communications Research Centre at Industry Canada have undertaken work on developing performance indicators, even though complete processes are not yet in place to collect and compile the information.

Establishing meaningful performance targets and evaluating results of science and technology will be a challenge.

9.77 At the government-wide level, Treasury Board Secretariat has moved with a series of departments and agencies toward developing frameworks for monitoring and evaluating results. A Statistics Canada advisory group on the development of science and technology statistics has proposed developing a nation-wide framework to be used in evaluating the results of the federal investment. The success of these initiatives, however, is ultimately dependent upon departments and agencies providing information that, as we report in Chapter 10, is currently unavailable.

9.78 There is a need to start developing and reporting some key measures and indicators. Evaluating research and development is a complex subject. It can never be truly comprehensive. Even if truly comprehensive evaluations were technically feasible, they would not be affordable. What needs to be done is to evaluate the most important components.

What a framework to assess results should include

9.79 Based on our audit, we offer the following suggestions for a framework to assess the government's involvement in science and technology. The government-wide framework will need to include results-oriented information on such topics as:

- the impact of government-wide policies, for example, the policy to transfer, where prudent and feasible, government in-house science and technology activity to the private sector and universities;
- progress and results achieved by the government's involvement at the sectoral level, that is, in government laboratories performing research and development aimed at sectors such as aquaculture,

mining, forestry, biotechnology, environment, pharmaceuticals and health; and

- the impact of initiatives such as the scientific research and experimental development tax credit program.

9.80 The government-wide science and technology framework will need to provide information on the cross-linkage of activities in different departments and agencies that have an impact on the same sectors. For example, several government research laboratories perform research and development that is relevant to the food-processing, aquaculture and mining industries. The Department of Finance's tax incentive program also affects these sectors. In order to have a sound basis for assessing results and adjusting priorities, the government will need to have information reported by sector as well as the traditional reporting structure, by department and agency.

9.81 Given the nature of science and technology, the assessing of results will need to encompass both progress and actual results. Companies base their decisions to allocate additional resources, or to terminate research and development projects, on progress to date and continued fit of expected results with market conditions. So, too, the government needs information on the progress of its science and technology initiatives in order to support decision making.

9.82 Assessing results will need to include outputs and the contribution of those outputs to end results. For example, objective assessment of results will take into account the scope and significance of the contribution of technology developed in a government laboratory to such end results as jobs, exports and tax revenue. Performance measures will comprise a mix of quantitative and qualitative indicators. The information sources will

The government will be limited in its ability to make sound decisions until it has better information on results in its science and technology portfolio.

include documented success stories, periodic inventories of the movement of technology and expertise, client feedback, review and priority-setting exercises, sector scans, measurement systems and independent evaluations.

9.83 The government needs to make decisions on science and technology. However, it will be limited in its ability to make sound decisions and set real science and technology priorities, provide real direction and focus on results until it has better information on results in its science and technology portfolio.

9.84 The government should define, design and implement a framework for assessing its science and technology policy and program initiatives. The information should link planned results, progress, actual achievements, expenditures and foregone revenues.

Parliamentarians and the Public Must Be Better Informed on Activities and Performance

9.85 In our 1992 chapter on departmental reporting, we stated that the business of government must be transparent, irrespective of Parliament's use of the information it is given. We recommended that information to Parliament include reporting on global stewardship. Chapter 7 of this Report discusses these notions in the context of sectoral activities like science and technology. The following paragraphs deal with our observations on science and technology reporting.

9.86 Because of the importance of the federal investment in science and technology, and the scattering of activities among numerous organizations, we believe that the availability of information on the overall activities and results of

these organizations is an important condition to ensure a better accountability.

There is no comprehensive reporting on federal science and technology activities

9.87 Information to Parliament on government science and technology activities is confined to Part III of the Main Estimates for individual departments. With respect to science and technology expenditures, the Part IIIs tend to report the inputs of programs and activities and do not provide a basis of accountability for results.

9.88 At the overall level, statistics are published by Industry Canada and Statistics Canada on expenditures and human resources involved in science and technology activities, but they do not provide any information on the nature of such activities and their results.

9.89 An attempt was made in the 1987 document called *A Decision Framework for Science and Technology* to gather and report on federal science and technology activities overall. That document, approved by Cabinet in January 1987, called for an annual overview of all federal activities in science and technology to be prepared by the then Minister of State for Science and Technology. The overview was to address the following issues:

- progress toward the alignment of those activities with the guidelines and priorities established by Cabinet;
- key issues, gaps, or duplication in the overall federal effort, taking into account the regional, national and international context;
- periodic in-depth reviews of the programs or issues;
- special reports of advisory groups established by departments, for example, in accordance with the Technology Centres Policy;

- potential or actual impact on science and technology of policy initiatives in other areas (taxation, investment, patents, procurement, labour adjustment, free trade); and
- major institutional changes or financing requirements for the management and support of science and technology.

9.90 The decision framework stipulated also that the overview was to be presented to the National Advisory Board on Science and Technology and to the Standing Committee on Research, Science and Technology for review and comment. An annual report was to be submitted to Cabinet and used to set strategic directions and priorities. That report was also to be used by Finance, the Privy Council Office and Treasury Board Secretariat in the preparation of multi-year operational plans, as input to the fiscal framework and the Budget, and in the fall planning meeting of Cabinet's Planning and Priorities Committee. Finally, a public report was also to be released. The most recent overview published was for 1989-90.

Parliamentarians have no basis to hold the government accountable for its spending on science and technology

9.91 In conclusion, current reports do not provide parliamentarians with the information they need to assess whether the government's investment in science and technology reflects Canadians' needs and opportunities. Available information does not help parliamentarians direct questions to the government about its strategies and priorities, the way funds are allocated among departments and agencies, the results of the intervention mechanisms used by the government and the research activities it carries out.

Parliamentarians are not provided with

information on co-ordination with other stakeholders or on current problems facing science managers.

9.92 We believe that parliamentarians need to be provided with information on government science and technology programs and activities that would answer four basic questions with respect to these programs:

- What are the government's mission and lines of business?
- How does the government carry out its lines of business to achieve its mission?
- What are the government's strategic objectives for realizing its mission, and its plans for managing the significant public resources under its control ?
- How did the government do at meeting its objectives, and how much did it cost ?

9.93 As we have noted, the government announced in its 1994 Budget that it will "put in place a true strategy for research and development, one with real priorities, real direction, and a real review of results." When those measures are put in place, accountability mechanisms will also need to be put in place. One such mechanism would be a short, but relevant and complete report on federal science and technology activities overall. As discussed in paragraph 9.66, it would be up to the government to decide who should be responsible for preparing such a report.

9.94 **The government, in consultation with Parliament, should establish a cost-effective reporting framework linked to its accountability structure to provide Parliament, on a regular basis, with information about its performance in managing its science and technology activities overall.**

Parliamentarians are not provided with the information they need to assess whether the government's investment in science and technology reflects Canadians' needs and opportunities.

Ensuring that a science and technology strategy emerges from the proposals to be put forward by the Minister of Industry could be one of the most important roles for parliamentarians in the near future.

Future Directions for Parliament

Parliamentarians could play an important role in the current science and technology review

9.95 As described previously, the current government initiative follows 30 years of unsuccessful attempts to establish a national science and technology strategy. Canada must decide what it wants to do. Our audit has shown that an effective, highly focussed, national science and technology strategy is critical to survival and growth in today's high-technology economic environment. Ensuring that such a Canadian strategy emerges from the proposals to be put forward by the

Minister of Industry could be one of the most important roles for parliamentarians in the near future.

9.96 Several challenges lie ahead. A first challenge for parliamentarians and for the appropriate parliamentary committee will be to ensure that there is a real results-oriented science and technology strategy with real priorities and real direction. A second challenge will be to ensure that there is a concerted effort to implement the strategy and achieve the intended results. Finally, a third challenge will be to ensure that a proper accountability infrastructure is put in place.

Chapter 10

Science and Technology

Management of Departmental
Science and Technology Activities

Table of Contents

	Page
Main Points	10-5
Introduction	10-7
Background	10-8
Federal departments and agencies carry on significant science and technology activities	10-8
Managing science and technology activities in the federal environment is a major challenge	10-8
Previous studies addressed the management of federal laboratories	10-9
Audit Objective and Scope	10-9
Observations and Recommendations	10-11
Overall Assessment	10-11
Deciding What to Do — Defining Research Goals and Priorities	10-12
Efforts are being made to set direction for science and technology activities	10-12
There is an urgent need for clear goals and more focus on results	10-13
Priorities must be based on a full recognition of sectoral opportunities and clients' needs	10-15
Research establishments must improve their business development capabilities	10-16
Accountability for implementing desired change must be clearly established	10-19
Managing Research Programs and Projects — A Key Success Factor	10-20
More rigor is needed in selecting research projects	10-20
The selection of projects tends to overemphasize revenue-generation considerations	10-21
There are major deficiencies in project management practices	10-23
Demonstrating the Effectiveness of Science and Technology Activities	10-25
Evaluating effectiveness is important and complex	10-25
Better information and practices are needed	10-25
Exhibits	
10.1 Why Is Research Management Different?	10-8
10.2 Research Establishments Examined in the Audit	10-9
10.3 1993-94 Science and Technology Spending for Departments and Agencies Audited	10-11



*Assistant Auditor General: Robert R. Lalonde
Responsible Auditor: Richard Flageole*

Science and Technology

Management of Departmental Science and Technology Activities

Main Points

10.1 The environment for federal science and technology managers has changed since our last government-wide audit of research and development, reported in 1981. Managers are now facing an important challenge in attempting to increase the relevance and the economic impact of their activities and to do so in a time of fiscal constraints.

10.2 While serious efforts are being made to set direction for science and technology activities, most research organizations we examined still need to set clear goals for their activities and focus more on results. They also need to set priorities based on a full recognition of the needs of their clients and of the opportunities in their respective sectors of activity. At present, there is no assurance that the activities they are performing and the means they have chosen to carry them out are those that provide the greatest benefits to Canadians.

10.3 More attention needs to be placed on business development activities. Most research establishments we examined should improve their capability for identifying potential uses and users of the results of their activities. It is unclear how science activities can meet the missions of departments and agencies and the needs of clients when such clients are not adequately defined and their needs not adequately profiled.

10.4 Departments and agencies must devote more effort to communicating new directions and objectives to their operational levels. Accountability for implementing desired change must be clearly established. This is particularly important in light of the current federal science and technology review.

10.5 The majority of organizations we audited do not select and review projects in a rigorous manner. The selection of projects tends to overemphasize revenue-generation considerations. Furthermore, there are major deficiencies in project management practices.

10.6 The commitment to evaluate science and technology activities varies significantly among departments and agencies. Much needs to be done before they are able to demonstrate the effectiveness of their activities.

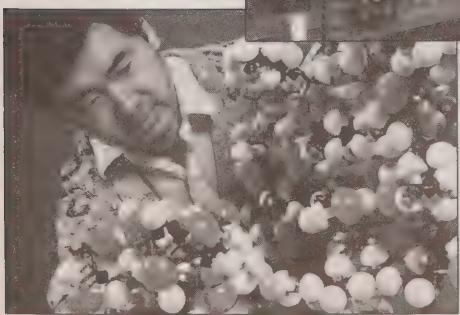
Introduction

10.7 Federal departments and agencies conduct science and technology activities that are of great importance to, and affect the lives of, all Canadians. For example, some of the work conducted in federal research establishments helps to ensure the quality of the food and water that we consume and the environment in which we live. Other activities are aimed at generating wealth, creating jobs for Canadians and improving the competitiveness of our industries. Just as important, federal organizations also contribute to the generation of new

scientific knowledge for the benefit of present and future generations.

10.8 As described in Chapter 9, our audit covered four important aspects of federal science and technology activities: the central machinery in place for the overall direction and co-ordination of federal efforts; the management of science and technology activities in departments and agencies; the management of scientific personnel; and the provision of tax incentives to industry for research and development. This chapter presents the results of our work on the second aspect: the management of science and technology activities undertaken in departments and agencies.

Federal science and technology activities are of great importance to, and affect the lives of, all Canadians.



Federal government research and development activities affect the lives of all Canadians and address various subjects; for example, clockwise from top right: ocean water characteristics; liquefaction of natural gas; toxic chemicals; enzymes to dissolve blood clots; and video compression (see paragraph 10.7).

Sources: Fisheries and Oceans Canada, Natural Resources Canada – CANMET, Environment Canada, National Research Council of Canada, and Industry Canada – Communications Research Centre.

Background

Federal departments and agencies carry on significant science and technology activities

10.9 As described in Chapter 9, the federal government spent approximately \$6 billion in 1993–94 on science and technology activities, excluding tax incentives to industry. These activities are conducted for a variety of reasons, such as health and safety, protection of the environment, communications and economic development. They are divided into two principal components: research and development and related scientific activities. These two components are explained in paragraph 9.16 of this Report.

In 1993–94, the federal government spent \$1.7 billion on research and development in over 150 federal research establishments.

10.10 The government allocated approximately \$ 3.5 billion of its total expenditure to research and development. Of that amount, \$ 1.7 billion was spent in over 150 federal research establishments and the remainder was paid to outside parties. Exhibit 9.3 (Chapter 9) shows the distribution of expenditures on both research and development and related scientific activities by departments and agencies.

Managing science and technology activities in the federal environment is a major challenge

10.11 The inherent nature of research and development activities poses specific challenges to science managers. Exhibit 10.1 describes some of the characteristics that make research and development a difficult activity to manage.

10.12 The environment within the federal government presents additional challenges. This environment has changed since our last government-wide audit of research and development, reported in 1981. The support of the departmental mission and the advancement of knowledge were the two primary challenges for the research and development manager of the early 1980s.

10.13 Today these challenges remain, together with new ones. The government has asked its science and technology managers to increase the economic relevance of science activities and therefore their impact on wealth generation. As a result, many of these managers now run businesslike operations, seeking partners and external funds to enhance the probability of technology transfer and, hence, wealth creation.

Exhibit 10.1

Why Is Research Management Different?

Not only is good management of research the critical difference between a thriving research organization and an average one, but research is the most difficult to manage of all functional activities.

There are three reasons for this special difficulty. The first is uncertainty of outcome, to a greater degree than in almost any other organizational endeavour.

The second is that scientists and engineers differ from other employees in their expectations, values, attitudes and motivation.

The third is the difficulty of measuring the results or impacts of research when each research task is unique.

Even where results can be measured, the delay between the successful conclusion of a research project and impact may be so great that it is hard to use the knowledge of the results as a basis for planning in the future.

“Lamontagne Report” 1972, Vol. 2

Many of these external arrangements come with their own objectives, conditions, time frames and accountability demands.

10.14 Recent years have also been characterized by financial instability as budgets of some federal research establishments were reduced. In times of continuing financial uncertainty, organizations tend to deal with the present, rather than anticipating or planning for the future.

10.15 As reported in Chapter 9, there have been neither a well-defined government-wide strategy nor priorities on which to base strategic science and technology decisions at the departmental level. Each organization consequently has had to rely on its own internal capabilities to guide its long-term activities.

Previous studies addressed the management of federal laboratories

10.16 Various studies and reviews have been conducted on the management of federal laboratories. In 1990, the National Advisory Board on Science and Technology issued an important report called *Revitalizing Science and Technology in the Government of Canada*

(known as the Lortie report). It made numerous observations and recommendations regarding the organization, financing and evaluation of federal laboratories. We took these into consideration in planning and conducting our audit.

Audit Objective and Scope

10.17 Our audit objective was to determine whether federal departments and agencies have established clearly what they want to achieve through their science and technology activities, whether they manage these activities in a way to maximize results, and whether they assess the results and impacts of their efforts.

10.18 Our audit covered a sample of five departments and agencies — Environment Canada, Fisheries and Oceans Canada, Industry Canada (the Communications Research Centre), the National Research Council, and Natural Resources Canada. We focussed on the research and development aspect of their activities. Field work was conducted at their corporate and regional offices as well as in 10 selected research establishments. Exhibit 10.2 provides a list of the research establishments selected for audit.

Deficiencies noted should not be associated with the appropriateness of investment by the government in a particular sector.

Exhibit 10.2

Research Establishments Examined in the Audit

Fisheries and Oceans Canada
Pacific Biological Branch, Nanaimo, West Vancouver, B.C.
Physical and Chemical Science Branch, Dartmouth, N.S.

Environment Canada
Climate and Atmospheric Research Directorate, Downsview, Ont.
National Water Research Institute, Burlington, Ont.

Natural Resources Canada – CANMET
Energy Research Laboratories, Nepean, Ont.
Mineral Sciences Laboratory, Ottawa, Ont.

Industry Canada
Communications Research Centre, Nepean, Ont.

National Research Council
Aerospace Research Institute, Ottawa, Ont.
Institute of Microstructural Sciences, Ottawa, Ont.
Marine Biosciences Institute, Halifax, N.S.

10.19 We believe that these organizations provide a good representation of federal research and development activities in terms of missions and mandates, scientific disciplines and types of research, related economic sectors, size and location. It should be stressed that our purpose was not to compare these organizations but rather to assess management systems and practices in a wide array of research and development activities. Deficiencies noted should not be associated with the appropriateness of investment by the government in a particular sector. As stated in Chapter 9 of this Report, it is up to the government to determine its priorities and to choose the activities it wishes to undertake.

10.20 We first examined how these organizations plan their activities, looking for clear objectives, goals and priorities. Then we reviewed how these plans were implemented by examining management systems and practices for organizing, directing and controlling activities. Given their growing importance, we placed a particular emphasis on how revenue-generating activities and external arrangements were managed. Finally, we reviewed the mechanisms in place to evaluate and report on the results of their operations. During the course of the audit, we also met with senior managers from various private corporations and universities engaged in research and development activities to learn about their management practices. In addition, we reported on research and development activities of the Department of Agriculture (now Agriculture and Agri-Food Canada) and of Forestry Canada (now part of Natural Resources Canada) in our 1993 Report. We make references to these audits in this chapter.

10.21 The organizations we audited have their own particularities and conduct various types of research. Various types of research involve different time frames. For example, research projects underlying basic scientific principles or fundamental technologies can be carried out over a period as long as 10 to 15 years. Applied research projects most often have shorter time frames. We took this into account in applying our audit criteria and assessing management systems and practices. A short profile of the five entities we examined follows.

10.22 Environment Canada. The Department conducts science and technology activities in support of sustainable development and for the protection of Canadians and their common environment. Its research and development programs focus on providing knowledge and information in support of policies, regulations, environmental monitoring and environmental services to Canadians.

10.23 Fisheries and Oceans Canada. The Department has resource management responsibilities with a primary focus on water and related resources. It has responsibility for all ocean-related matters not legally assigned to any other department. The Department's scientific objective is to ensure that scientific information of a high international standard is available to the Government of Canada for the development of policies, regulations and legislation in this area.

10.24 Industry Canada — The Communications Research Centre. The Communications Research Centre conducts research in broadcast technologies, communications devices and components, radio communications, satellite communications, and communications networks and systems.

The Centre was designated research institute status in 1992, based on the recommendations made in the Lortie Report.

10.25 National Research Council.

The Council supports national science and engineering activities and performs and stimulates investment in research and development; it also develops and provides scientific and technological expertise and knowledge. It conducts research in such areas as information technologies, automated manufacturing, transportation, advanced materials, biotechnology, natural resources and the environment.

10.26 Natural Resources Canada — The Canada Centre for Mineral and Energy Technology (CANMET).

CANMET is Canada's major centre for technology development in the minerals, metals and energy sectors. CANMET performs and sponsors predominantly commercial and cost-shared research and development and technology transfer, in partnership with industry and other clients. CANMET's mandate is to enhance the competitiveness of Canada's minerals, metals and energy industries; to improve and develop technologies for

energy efficiency and alternative energy; to improve health, safety and environmental control in its client industries; and to support government policy initiatives.

10.27 Exhibit 10.3 shows the financial resources invested in science and technology activities in the five audited organizations.

Observations and Recommendations

Overall Assessment

10.28 As described in Chapter 9, the federal government has committed itself to managing its science and technology portfolio more strategically. It has announced its intention to set priorities for research and development, to provide direction and to carry out a real review of results. Consequently, a major review of federal science and technology activities is under way.

10.29 The success of this initiative is ultimately dependent on the ability of science-based departments and agencies to implement the new directions that might arise from that review.

Federal research establishments need to improve their management systems and practices to be able to respond better to the requirements that will follow from the federal science and technology review now under way.

Exhibit 10.3

1993-94 Science and Technology Spending for Departments and Agencies Audited

	R&D	RSA	TOTAL R&D/RSA	TOTAL EXTRAMURAL	TOTAL
Environment Canada	103,522	496,748	600,270	65,566	665,836
Fisheries and Oceans Canada	132,818	113,944	246,762	13,578	260,340
Industry Canada – CRC	40,100	—	40,100	—	40,100
Natural Resources Canada	201,941	193,418	395,359	80,637	475,996
National Research Council	334,932	59,593	394,525	118,007	512,532

Source: Statistics Canada and CRC

Much needs to be done to ensure that each department and agency invests its resources in a way that yields the greatest benefits for Canada.

10.30 Our audit led us to conclude that federal research establishments need to improve their management systems and practices to be able to respond better to the requirements that will follow from this government-wide initiative. First, they will have to clarify their roles in their respective sectors of activity and to set clear goals and priorities for their research and development activities. The establishment of priorities at the government-wide level will be helpful to that end.

10.31 Second, we found that research organizations need to pay more attention to the expected results and impacts of their work in selecting research programs and projects. Some organizations are making very good progress in this area and we encourage all science-based organizations to pursue their efforts toward that end.

10.32 Third, departments and agencies must improve their project management practices. As reported in Chapter 11, more attention needs to be placed on developing a truly effective management capability in federal research establishments.

10.33 Finally, the ability of the federal government to carry out a real review of results relies on the ability of science-based organizations to provide the needed information. To meet this requirement, they will have to enhance their capabilities for evaluating the effectiveness of their activities.

Deciding What to Do — Defining Research Goals and Priorities

10.34 We expected that each department and agency would conduct its science and technology activities in the context of clearly articulated objectives, goals and priorities related to their

mandates and missions. We also expected that anticipated results of research and development programs would be clearly defined, where feasible and reasonable to do so, in terms of outputs, outcomes and impacts. In applying this latter criterion, we recognized the inherent difficulties of defining expected results for some types of research conducted.

10.35 Overall, we found that while efforts are being made to set direction for science and technology activities, much needs to be done to ensure that each department and agency invests its resources in a way that yields the greatest benefits for Canada. The absence of a well-defined strategy and priorities at the government-wide level is one of the factors contributing to this situation.

Efforts are being made to set direction for science and technology activities

10.36 Our review of planning practices and interviews with departmental management and staff revealed a commitment on the part of individual departments and agencies to set direction for their science and technology activities. Various initiatives have been taken or are under way to develop a clearly stated corporate vision, and to elaborate science and technology strategies aimed at eventually ensuring that program and project decisions are based on relevance to departmental objectives and needs of clients. Some organizations have made more progress than others.

10.37 For example, CANMET has made good progress in recent years in setting direction and focussing its activities. Its management and staff at the corporate and operational levels engage in frequent planning sessions that contribute to the development and updating of an overall strategic plan, called CANMET 2007, and a three-year business plan. Other audited organizations have also

placed emphasis on deciding what to do. The Communications Research Centre has recently identified new strategic directions to guide some of its activities and has developed a business plan to focus its efforts. The National Research Council is in the process of redefining its future directions, objectives and strategies and updating its Long-Range Plan. Current goals and programs are being reviewed to place more emphasis on the creation of wealth for Canada.

10.38 Environment Canada is also making efforts to provide direction for its scientific activities. Six corporate directions have been identified to guide departmental activities in the future and a long-term corporate business plan has been produced. Finally, the Science sector of Fisheries and Oceans Canada produced a Core Business Statement in 1993 that highlights core business sectors and identifies key areas for improvement.

There is an urgent need for clear goals and more focus on results

10.39 The level of direction to be provided to research managers and scientists requires a delicate balance and must take into account the inherent characteristics of research and development. As stated in the Lortie report:

Strategic planning in the organizations examined (for best practices) involves continuing and healthy tension between initiative and control, and between bottom-up and top-down decision-making. The tension between bottom-up and top-down decisions allows a balance between scientific freedom and focused activities. No mission-oriented laboratory can afford to allow scientists to pursue individual research projects entirely of their own design. But neither can they expect

highly trained and creative scientists simply to execute projects defined by non-scientific managers or clients.

10.40 Strategic directions serve to guide research program decisions and, ultimately, the selection of specific projects by research managers at the laboratory level. The absence of a clear set of goals, priorities and expected results increases the risk that research projects will be selected that do not contribute to the achievement of departmental objectives. Taking into account the delicate balance required in the level of direction to be provided, we found that present strategic directions are not specific enough to reduce that risk to an acceptable level.

10.41 Our review of strategic planning documents in the five organizations we audited revealed that most outline only in very general terms the proposed research directions and intentions. We noted that these documents are often activity-oriented and that research goals are often expressed in terms of actions such as “studying the effects of”; “creating new strategic alliances”; and “providing scientific information on”. Although these statements set general directions for research to follow, they do not provide sufficient focus or specify the expected results and impacts.

10.42 We consequently expected that these general directions would be further translated into goals and priorities that were more specific, and that individual research programs and projects would be defined in terms of related expected results. The five organizations reviewed meet these criteria with varying degrees of success, often limited.

10.43 This is a government-wide malaise. We made similar observations on two other federal departments in our 1993 Report. In Chapter 16 of that

The absence of clear goals, priorities and expected results increases the risk that research projects will be selected that do not contribute to the achievement of departmental objectives.

Clearly stated goals, priorities and expected results are essential conditions for assessing the success of programs and for holding managers accountable for their use of resources.

Report, we noted that the Department of Forestry, at that time, had not articulated clear research goals and priorities, and that a new strategic plan was urgently needed to explain how it intended to manage its research efforts to promote sustainable development. In Chapter 13, we observed that although the Research Branch of Agriculture and Agri-Food Canada had directed its scientists to target their research efforts to foster competitiveness, it was difficult to determine, from the information in the Department's Research Study Data Base, how research projects supported the objectives of the Department and fostered competitiveness.

10.44 We conclude from our present audit that departments and agencies must do a lot more to plan and allocate their resources more effectively. As discussed later in this chapter, clearly stated goals, priorities and expected results are essential conditions for assessing the success of programs and for holding managers accountable for their use of resources.

10.45 In the absence of such clarity, we found weaknesses in the research establishments' planning processes. In many of the institutes and laboratories examined, managers and staff engage in planning on a routine basis and develop various types of plans to demonstrate how they intend to act on, and contribute to, the achievement of corporate objectives. However, these objectives are vague. Consequently, the resulting plans are general statements of intent with very little rationale for that intent. In many cases, managers could not demonstrate that the choices made (type of research, client or subject area) were supported by an in-depth analysis of needs, opportunities, risks and alternatives.

10.46 We noted that program funding decisions are often based on the desire to retain and use existing resources rather than to reallocate them in a rational effort to respond to national needs. We also found that, in some cases, the distribution of financial resources is not related to program objectives and priorities. As discussed later in this chapter, the selection of research and development projects tends to overemphasize revenue-generation considerations.

10.47 We observed that the lack of clear corporate goals and priorities, coupled with budgetary restrictions, leads to behaviour among managers and "bench scientists" that, in our opinion, is alarming and counterproductive. Our interviews with staff in some research establishments we visited revealed that members perceive that there is limited value in trying to plan for the future. This perception is based on operational realities. Resources are scarce, and conditions governing their use are restrictive. Some managers believe that their planning horizon is limited to one budget-year, while research often takes many years to achieve its objectives. They also believe that they can work only in areas where there is already internal scientific research expertise. If new trends or opportunities require new equipment or facilities, the lead time to acquire them through the existing process is probably beyond the projected opportunity for the research. The lack of flexibility in managing scientific personnel, as noted in Chapter 11, and the instability of funding in research establishments are other important factors that have contributed to this situation.

10.48 Some of these concerns of managers are real. For example, we found situations where, in the absence of priorities, departmental budget reductions have been applied across the board. We

also observed ageing laboratory equipment, and research vessels tied up at port because, according to management, there are not enough resources to send them to sea. This points to the need to make tough choices and focus efforts on fewer areas, rather than trying to maintain a cadre of scientists in all areas of interest but with insufficient resources to allow them to work effectively.

10.49 As we report in Chapter 11, the lack of specific departmental direction also seriously hinders the ability of research establishments to manage their scientific personnel strategically. Clearly stated goals, priorities and expected results are essential inputs to planning decisions regarding long-term human resource needs. We are concerned about whether the necessary number of people with the scientific skills and knowledge required to fulfill the mandates of the science-based government departments will be available when needed.

Priorities must be based on a full recognition of sectoral opportunities and clients' needs

10.50 Our review of strategic planning practices led us to conclude that most departments and agencies we examined need to set priorities on the basis of a full understanding of sectoral opportunities and clients' needs. Overall, we found that these organizations should clarify their intended roles in their respective sectors of activity. They should conduct environmental scans and impact analyses to better support and demonstrate the relevance of their programs to actual needs. There is a need to assign priorities to programs and rationalize the allocation of resources.

10.51 For example, we found that the Communications Research Centre has conducted detailed analyses to support its

involvement within its three activity areas — spectrum-related research, work conducted for other federal departments and innovation projects. However, the rationale for allocating resource levels to each of these areas remains unclear. Management of the Communications Research Centre has indicated that the current allocation of resources is based on historical activities and convention.

10.52 Federal organizations, such as CANMET, the National Research Council, and the Communications Research Centre, are conducting a significant level of activity aimed at wealth generation that requires ongoing liaison with the private sector. Environment Canada and Fisheries and Oceans Canada are also conducting such activities, but to a lesser extent. The objective of wealth generation poses significant challenges to these organizations in setting priorities and demonstrating the relevance of programs to actual needs. The pursuit of wealth-generation objectives on a large scale requires strong internal strategic, economic, business and technical capabilities.

10.53 If federal research establishments are to be used as a tool for generating wealth and creating jobs, their resources must be invested in the most promising sectors of the economy, and those sectors with the greatest need for advanced technology must be identified. To do so, federal agencies must clearly understand the functioning of Canada's innovation system, the role they can play, and the needs and opportunities they can address in each sector, given their strengths and particular capabilities. The most cost-effective means of making the desired difference must then be selected. The best choice might not necessarily be to perform research and development activities internally; maybe incentives

There is a need to make tough choices and focus efforts on fewer areas.

The objective of wealth generation poses significant challenges to federal organizations in setting priorities and demonstrating the relevance of programs to actual needs.

Research and development opportunities and clients' needs often cross departmental boundaries and objectives.

need to be provided to encourage the private sector or universities to undertake these activities.

10.54 CANMET has made good progress in developing the capabilities to address these challenges. However, our audit led us to conclude that its current knowledge and analytical capability for assessing opportunities and risks in the Canadian and international science and technology environments still do not provide assurance that the most cost-effective choices are being made.

10.55 A better understanding of strategic business needs and overall scientific and technological trends would allow CANMET to play a key leadership and co-ordination role in supporting and advancing science and technology in its sectors of activity into the future. It would also assist in minimizing repetition of work done by others and competition with private suppliers, which currently are part of the scientific and technological environment.

10.56 We commend CANMET's efforts in recent years to integrate planning and priority setting, and to focus its activities. However, CANMET has been in this business for a long time and still needs to do more to develop its analytical knowledge base. For example, some of CANMET's activities are viewed as competing inappropriately with its clients. CANMET needs to question its pursuit of research activities in areas where a strong industry capability and intense competition already exist. All departments and agencies, regardless of their research program orientation, face similar challenges.

10.57 For example, organizations conducting research activities aimed at health, safety and environmental concerns face similar challenges in setting priorities

and demonstrating program relevance to actual needs. They require similar capabilities to be able to do so. Our audit revealed that Environment Canada and Fisheries and Oceans Canada participate in a variety of forums designed to provide a broad assessment of opportunities and knowledge needs in support of their departmental missions. This information contributes to setting corporate directions and overall research and development requirements. However, we found little evidence of analysis of opportunities, needs and risks to provide a rationale for project selection decisions and ensure that the most cost-effective choices are made.

10.58 Moreover, research and development opportunities and clients' needs often cross departmental boundaries and objectives. We noted, for example, that some of the objectives of the National Research Council with respect to biotechnology are similar to the objectives of Fisheries and Oceans Canada. Such situations also exist between the Council and other departments and agencies, such as Industry Canada (the Communications Research Centre) and Natural Resources Canada. This poses additional challenges to these organizations in understanding the needs and opportunities to be addressed and in selecting the most cost-effective means to address them.

10.59 We believe that the analyses being conducted as part of the current federal science and technology review will provide valuable information to departments and agencies for identifying opportunities and needs in their various sectors of activity.

Research establishments must improve their business development capabilities

10.60 Business development activities by research establishments include identifying potential uses and users of their research and development,

understanding and assessing opportunities, and determining how the organization can best capitalize on those opportunities.

These activities can contribute significantly to improving the relevance of research and development, developing successful alliances, transferring technology, and generating revenue. We expected research establishments to have developed the internal capabilities to identify potential clients and partners as well as the needs and opportunities within their sectors, and to promote their services.

10.61 In general, more attention needs to be placed on business development. We are uncertain as to how science activities can meet the missions of departments and agencies and the needs of clients when the clients are not adequately defined and their needs not specifically profiled. We believe that informal approaches to gathering market information increase the risk that strategic decisions may be based on less than relevant knowledge and information about potential uses and users of research outputs. Such analysis is critical in areas of science where rapid change is common and knowledge and technology can quickly become obsolete.

10.62 Given their different missions, mandates and research directions, the departments and agencies that we examined vary significantly in their orientation toward business development. For example, CANMET, the Communications Research Centre and the National Research Council put more emphasis than do Environment Canada and Fisheries and Oceans Canada on developing alliances and operating in closer relationship with the private sector. Consequently, those three organizations have the most developed business development infrastructures and practices.

10.63 All three organizations have put in place a corporate business development and marketing function. For example, the Business Development Division of the Communications Research Centre is responsible for the management of intellectual property, business development, communications and promotion, major client co-ordination and library and information services. CANMET and the National Research Council also have central business development and intellectual property services that provide market intelligence, guidance and advice.

10.64 In some of the research establishments we examined, market information and analysis are not used to identify client needs or to relate those needs to their existing and potential capabilities. For collaborative research projects, little attention is given to defining the optimal external partner, and few mechanisms are in place to vet potential partners. But progress is being made. CANMET is developing closer relations with its clients in order to improve its ability to identify opportunities and needs. We also noted that the Communications Research Centre places significant emphasis on developing ties with other organizations and on marketing its intellectual property.

10.65 If Environment Canada and Fisheries and Oceans Canada want to focus more on wealth generation for the country, they will have to significantly improve their business development capabilities. For example, in both departments, collaboration with industry is minimal. Intelligence gathering on potential partnerships is done informally by word of mouth, personal contact and attendance at workshops by scientists.

10.66 Many of the areas in which Environment Canada has developed

More attention needs to be placed on business development activities.

In some research establishments, market information and analyses are not used to identify client needs or to relate those needs to their existing and potential capabilities.

scientific expertise are becoming ripe for commercialization. Some of these areas include environmental software, data, testing, instruments and process work. Even in some of its more theoretical or longer-term basic research, the Department now is well positioned by its technical knowledge in a sector that is considered to have good commercial potential.

10.67 Currently, scientists at Environment Canada are encouraged to advance the commercialization of some of their work. They recognize the importance of this effort. However, the potential commercialization of environmental technologies, processes, products and services could be enhanced through stronger links with the private sector. In our view, a more consistent effort could be made to ensure that Canadian industries are involved in the eventual marketing and commercialization of environmental products.

10.68 Finally, at Fisheries and Oceans Canada, we found that little effort is directed toward identifying potential partners, and there are few apparent criteria for assessing and selecting external partners. Selection tends to be mainly in response to external initiatives.

10.69 Departments and agencies should:

- set clear goals, priorities and expected results for their research and development activities;
- conduct environmental scans and business analyses to clearly identify needs, opportunities and risks in their sectors of activity; and
- improve their ties with clients at the laboratory level through increased business development activities.

Response from Environment Canada: Environment Canada has, over the years, set broad directions and priorities for its mission-oriented research. Where feasible, it has defined the expected results. Environment Canada's Business Plan 1994 to 1999 furthers this process.

Environment Canada's mission-oriented research institutes continually conduct analyses to identify emerging environmental problems and to determine research needs for departmental policy, regulatory, negotiating and service delivery purposes. A new Science Forum Series has been instituted, where scientists and managers discuss emerging issues and take decision on research priorities.

Environment Canada's mission-oriented research laboratories primarily serve internal clients but obtain private sector and provincial input through a variety of planning boards and continuing consultations. Environment Canada is enhancing its efforts to identify opportunities for commercialization with respect to all of its business lines and research institutes. In so doing, the department will ensure that all staff are guided by a commercialization policy that defines the range of acceptable business arrangements available.

Response from Fisheries and Oceans Canada: Goals, priorities, and expected results of R&D activities are currently being reviewed as part of the Department's Program Review. The Review includes all aspects of departmental activity, including interaction with the private sector.

Response from Industry Canada — Communications Research Centre: The CRC agrees with these statements although these recommendations would contribute appreciably to the cost of overhead at the expense of the research the laboratory is mandated to do. CRC has, as a strategy, decided to devote a significant amount of its resources to this activity.

Response from the National Research Council: *NRC is a client-oriented organization with research programs focussed on strategic industrial sectors. NRC's planning and accountability processes emphasize the need for statements of expected results, and changes to planning practices will improve the definition of performance goals. NRC's corporate marketing office performs industrial sector analyses and institutes have industrial liaison units.*

Response from Natural Resources Canada (CANMET): *NRCan agrees with the importance of acquiring a sound knowledge of the economic sectors it serves and is committed to setting clear goals, priorities and expected results for its research and development activities. The Department will continue to improve its existing strategic planning processes.*

Accountability for implementing desired change must be clearly established

10.70 We concluded that departments and agencies must devote more effort to communicating new directions and objectives to their operational levels. In some organizations we audited, there is no clear link between plans and the work actually carried out in the laboratories.

10.71 In a time of organizational and program changes, corporate management must be fully informed of progress toward new or changed goals. This is particularly important to ensure the effective implementation of the new directions and priorities that might emerge from the current federal science and technology review. There is a need to develop corporate information frameworks that are cost-effective, and that are built around the performance and accountability information that managers need to support their decision making and implement new strategies and directions. More emphasis must be placed on periodic and annual

performance reporting by institutes and research establishments. Our review of present performance reports revealed that they are often very general, not timely, and not results-oriented. However, until managers of laboratories are provided with clear statements of expected results and performance, it will be very difficult to assess the progress of each organization toward achieving new goals and directions.

10.72 Departments and agencies should develop cost-effective corporate information frameworks built around the performance and accountability information they need to monitor the implementation of new strategies and priorities and the achievement of expected results.

Response from Environment Canada: *Environment Canada has utilized work plans, work plan reports and management contracts to address performance and accountability over the past decade. The recently released Environment Canada Business Plan 1994 to 1999 presents six corporate directions with long-term objectives, measures of success, five-year results as well as performance indicators. The Department is already moving to meet these objectives and will enhance its management information system to provide improved and accessible performance and accountability information.*

Response from Fisheries and Oceans Canada: *Over the past few years, the Department has developed a PC-based Program Inventory of Science Sector activities. The inventory provides simple, detailed, results-oriented information that is being used effectively by program managers.*

Response from Industry Canada — Communications Research Centre: *One cannot argue with the theory behind this recommendation. A well-managed organization needs to capture information*

More emphasis must be placed on performance reporting. Present performance reports are often very general in nature, not timely, and not results-oriented.

that illustrates its success or failure to realize its goals, objectives and priorities. However, the cost of developing sophisticated management information systems in a time of severe fiscal restraint must be weighed against the lost opportunity of conducting research. In periods of financial hardship, trade-offs must be made, and less sophisticated means of information gathering may well have to be relied upon to respond to information requirements. A good manager will ensure that new strategies are implemented, priorities are respected and expected results are achieved, without having to develop corporate information frameworks. This is clearly an issue that has to be addressed in the Science and Technology Review.

Response from the National Research Council: NRC institutes have prepared performance and accountability criteria in response to new long-term plans. Corporate performance criteria linked to its new long-range plan are being developed to guide the plan's implementation.

Response from Natural Resources Canada (CANMET): NRCan acknowledges the need for a cost-effective corporate information framework and is continuously improving the tools put in place to achieve proper monitoring.

Managing Research Programs and Projects — A Key Success Factor

10.73 To help ensure that research establishments undertake and deliver the research programs and projects that generate the greatest benefits for Canada, we expected that project selection processes would be formally established; that clear criteria related to the research establishments' goals and expected results would be established for selecting programs and projects; that up-to-date program and project definition documents

would be available; and that research proposals would be supported by objective information on opportunities, challenges and risks. Finally, we expected that projects would be well managed and periodically subjected to rigorous review to ensure that progress is being made and that the projects continue to be relevant.

10.74 As stated previously, managing research and development programs and projects requires a delicate balance. On the one hand, researchers and their projects require sufficient freedom and flexibility to encourage creativity and motivation while addressing the challenges they face. On the other hand, the commitment of important resources to these projects requires a level of control that ensures that results are maximized. Our findings are based on examination of both internal projects and projects that involved external parties.

More rigor is needed in selecting research projects

10.75 Overall, in most of the organizations we audited, project selection practices and criteria do not consistently ensure that the projects selected are closely aligned with corporate objectives. As we have noted, the lack of clear objectives and expected results impedes the ability of research managers to do so.

10.76 CANMET and the Communications Research Centre have formal processes for selecting projects and have developed clear selection criteria. However, project selection in other research establishments is often informal and based on the uninterrupted continuation of the previous year's activities.

10.77 Most research establishments do not support their internal research proposals with objective analyses of opportunities, risks and alternatives based

on formal consultations with stakeholders and advisors. This lack of complete and objective analyses severely limits the ability of laboratories to select programs and projects that will provide the greatest possible return on investment. Although management considers various factors in selecting projects, the rationale for why certain projects were selected over others is not well documented.

10.78 In most research establishments, project selection does not place enough emphasis on the expected end results or impact of the projects. Research and development organizations tend to focus on the laudable objective of producing high-quality research outputs. They place relatively little emphasis on the equally important objectives of ensuring that there is a potential for adopting the research outputs, examining alternative ways of acquiring the desired knowledge or technology, and ensuring the involvement of both scientific and non-scientific players to achieve the desired results.

The selection of projects tends to overemphasize revenue-generation considerations

10.79 Federal departments and agencies are placing greater emphasis on developing partnerships, alliances and linkages with provinces, universities and industry. Government laboratories now operate in a variety of fee-for-service arrangements, collaborative agreements, and consortia. Fee-for-service arrangements may involve full cost recovery while collaborative agreements and consortia feature financial and/or in-kind participation by parties in varying proportions. We refer to such arrangements as “external arrangements” in this chapter.

10.80 Funds from external arrangements are significant to the

operations of some government research establishments, especially as they often supplement lean operating and capital budgets. For example, the National Research Council generated approximately \$ 34 million in fee-for-service revenue in 1993–94. Collaborative research and trust funds available to the organization from external partners increased to over \$ 9 million for that year, exclusive of in-kind contributions. CANMET also has a large number of external arrangements.

10.81 External arrangements can bring substantial benefits to federal research establishments and to other stakeholders. For example, organizations may share risks and pool talents and resources in addressing complex issues. These arrangements create an environment in which organizations can learn from each other and adopt best practices in conducting and managing their projects. They can also provide direct indications of the relevance of projects to clients’ needs, and significantly increase the cost-effectiveness of the research performed by federal laboratories. Knowledge and technologies developed under such arrangements are more likely to be transferred and implemented successfully. Finally, many external arrangements bring funds into federal laboratories and may increase total expenditures in Canadian research and development by leveraging dollars from private sector partners.

10.82 However, these arrangements also represent risks and challenges for laboratory managers. If not properly managed, they may impede the realization of departmental priorities and drain core science funds. They often require specific management and accountability mechanisms. The diversity of fund sources and differing accountability

Project selection does not place enough emphasis on the expected end results or impact of the projects.

External arrangements can bring substantial benefits to federal research establishments and to other stakeholders. However, they also represent risks and challenges for laboratory managers.

requirements also place a substantial administrative and financial burden on departments and agencies.

10.83 The total number of external arrangements between the government and external parties is unclear. In some organizations audited, we had difficulty in determining the total number of arrangements. We also identified many arrangements that were not documented. Furthermore, we found little uniformity across organizations in the classification of arrangements by type.

10.84 Overall, we found that projects with external parties are somewhat better managed than internal projects. However, most research establishments examined still have to significantly improve their practices in managing external arrangements.

10.85 Certain laboratories have not clearly stated the objectives and results to be pursued through external arrangements. Our interviews with managers revealed some confusion between the notions of generating wealth for the country and generating revenues for their organizations. Inasmuch as revenue generation is, in fact, used as an indicator of relevance to clients' needs, it should be considered as a bona fide criterion among others for project selection. However, if it becomes an end in itself, then it becomes counterproductive.

10.86 We do recognize the progress that has been made; some good practices are in place to build on for the future. However, the selection of projects tends to overemphasize revenue-generation considerations. In many cases, we found that pressures to collaborate and generate revenue are biasing the choice of research and development projects in a direction that could bring short-term benefits to particular industry clients and other

parties, rather than long-term value to Canadian industry and the economy as a whole. An overemphasis on cost recovery can also result in an erosion of the knowledge-based research necessary to maintain a leading edge in key scientific areas.

10.87 In our view, an overemphasis on short-term and problem-solving research can also make federal organizations vulnerable to perceptions that they compete with or subsidize other parties. Finally, in the face of limited resources, the pursuit of high cost-recovery targets leads to priorities in some departments and agencies that may detract from fulfilment of their other mandate responsibilities, such as policy development, health and safety improvements and environmental controls.

10.88 **Departments and agencies should:**

- clearly state and communicate to their personnel the objectives to be pursued and the expected results to aim for through external research arrangements; and
- put mechanisms in place to ensure that these arrangements do not distort their long-term scientific operations.

*Response from Environment Canada:
Environment Canada's mission-oriented research is conducted primarily for internal purposes and clients. Nonetheless, where external research arrangements are undertaken, the objectives are clear and made fully known to research personnel. The long-term operations of Environment Canada's mission-oriented research have not, thus far, been distorted by external research arrangements. However, the high proportion of research performed through "sunsetting" resources, combined with fiscal restraint, can be expected to impact*

If revenue generation becomes an end in itself, then it becomes counterproductive.

unfavourably on Environment Canada's long-term research.

Response from Fisheries and Oceans Canada: This issue of external research arrangements was addressed in the Core Business Statement for Science in 1993. The Department's current Program Review is redefining its structural links with other federal/provincial agencies, and examines cost recovery issues. The interim and final results are being communicated to staff.

Response from Industry Canada — Communications Research Centre: CRC agrees fully with this statement. In fact, CRC prides itself on having stated and communicated its objectives to all CRC staff through various means. With respect specifically to external research arrangements, CRC has an established Business Development office and Corporate Development directorate and all scientific staff are fully aware that this expertise must be used when discussing, negotiating or concluding any external research arrangement. Furthermore, mechanisms are in place to ensure that external research arrangements do not distort long-term scientific operation through the limiting of financial delegation to managers.

Response from the National Research Council: NRC has policies for research that guide staff on the expected results for external research arrangements. Institute plans outline goals that balance medium to long-term strategic and collaborative research with contract and fee-for-service work.

Response from Natural Resources Canada (CANMET): NRCan is committed to state and to communicate clearly to its personnel the objectives to be pursued and the expected results sought through external research arrangements. Accordingly, the Department will be reviewing its communication strategy over the next fiscal year. NRCan recognizes the

impact of external research arrangements on organization operations.

Consequently, the Department will review its project portfolio to ensure that an appropriate balance is maintained.

There are major deficiencies in project management practices

10.89 In some research establishments, the discipline of defining projects exists to meet a corporate requirement and to justify resources, rather than to assist in the effective management of activities. As a result, in many instances, project definition documents do not accurately reflect operational reality and are of limited use both to research managers and to more senior management.

10.90 In most organizations we audited, there is a need to improve the ongoing management of projects. Project monitoring and reporting is often ad hoc and informal with minimal tracking and consolidation of performance data. Furthermore, we found that more rigor is needed to deliver projects on time. We also noted weaknesses in the financial control of projects.

10.91 Finally, we found serious deficiencies in costing and pricing practices. Federal research establishments need information on costs for a variety of purposes, such as allocating resources, selecting or terminating projects, monitoring efficiency or recovering costs from outside parties. The type of cost information and the level of detail required vary, depending on the intended use of the information.

10.92 We expected departments and agencies to have the cost information they require to manage their operations. We also expected them to include the direct costs, together with an appropriate portion of overhead, in analyses supporting decisions and activities.

Project monitoring and reporting is often ad hoc and informal.
More rigor is needed to deliver projects on time.

**Weaknesses in cost
information create a
serious risk of
unknowingly
subsidizing external
partners.**

10.93 Overall, we have serious concerns about the quality of cost information available to laboratory managers to manage both internal and collaborative projects. Weaknesses in cost information create a serious risk of unknowingly subsidizing external partners. Science managers may also maintain research facilities of marginal relevance because, on occasion, they may generate revenues.

10.94 As discussed previously, federal research establishments are moving more and more into cost-recovery activities. To set rates that cover costs, an organization must know what those costs are. Most of the laboratories we examined do not know the full costs of their activities. While standard charge-out rates have been developed by some organizations, they sometimes exclude important cost elements such as equipment, computer facilities and installations. Even when charge-out rates exist, they are not always followed. For example, at the National Research Council, we did not find any criteria setting out the rationale for deviating from established rates. In some cases, price adjustments are made based on the client's willingness to pay rather than on the department's cost to carry out the activity. The rationale for doing so is not always provided or evident.

10.95 As for internal projects, managers do not have information on the costs they can control. For example, we noted deficiencies in the recording of scientist and other staff time on projects. The lack of reliable information on the costs of activities limits the ability of managers to weigh the costs and benefits of various alternatives.

10.96 But there are good practices on which to build. For example, CANMET continues to adjust and standardize its

costing and valuation methods to improve the efficiency of its external client-based projects. In addition, it uses a cost-recovery index to help managers and scientists understand how efficient they are at recovering the costs of revenue-generating projects.

10.97 Departments and agencies should ensure that:

- expected results of all research projects are defined adequately;
- the relevance and cost-justification of projects are reviewed regularly; and
- cost information required to manage their operations is available.

Response from Environment Canada:
With respect to Environment Canada's mission-oriented research, in many instances it is impossible or unjustifiable to define expected results. This is particularly the case where exploratory ecosystem research is being conducted. Where reasonable and justifiable, expected results are defined. This process will continue to be improved through the Department's new business planning process and consideration will be given specifically to improving research project evaluation and enhanced reporting on S&T activities, including measurement of costs and benefits.

Environment Canada's mission-oriented research is conducted on environmental issues of particular relevance to Canadians and Canadian ecosystems. Cost information is available for semi-annual reviews of relevance and cost justification.

Response from Fisheries and Oceans Canada: The Department already has mechanisms in place that accomplish these recommendations.

Response from Industry Canada – Communications Research Centre: CRC agrees with these recommendations, with the caution that the process does not overcome the research.

Response from the National Research Council: NRC is in the process of changing research project review practices.

Response from Natural Resources Canada (CANMET):

NRC agrees with the importance of defining expected results for research projects, regularly reviewing project relevance and cost justification, as well as having available project cost information. The Department will re-examine its project management methodology to ensure that it provides the required information.

Demonstrating the Effectiveness of Science and Technology Activities

Evaluating effectiveness is important and complex

10.98 Having good information on results achieved can be very useful in selecting future research programs and projects. Departments and agencies are faced with a multitude of choices when selecting the research to pursue. One of the most important elements that can assist in this decision-making process is the analysis of whether the research being undertaken continues to be relevant to departmental priorities; another element is the assessment of progress toward expected results. Solid performance information is needed for deciding to terminate some activities, reallocate resources and launch new research initiatives. Furthermore, information on results is necessary if research managers are to be held accountable for the resources they use.

10.99 However, we recognize that determining the results from research and development is complex. The results can take many forms and come at different times. For example, the results of an improved buoy for monitoring weather

can be identified soon after the research, whereas the results from improved prediction of ocean currents may not be evident for many years. Also, the knowledge from research and development can sometimes lie dormant for a long time before it is put to use and the full impact from the knowledge is realized. Consequently, it is often very difficult to attribute an eventual impact to specific research results. Finally, the impacts are not always quantifiable.

10.100 Program evaluation is one important analytical method available to departments. This method involves periodic studies that address major questions pertaining to, for example, the relevance and impact of government programs. We expected to find monitoring and analysis mechanisms that would permit science managers to demonstrate the results of their activities. This would be in addition to standard scientific quality assurance.

Better information and practices are needed

10.101 Overall, we found that the commitment to evaluation varies significantly among departments and agencies. Most organizations audited do not have all the elements necessary to determine the effectiveness of their science and technology activities. A number of departments and agencies have conducted program evaluations of some of their laboratory activities. Some of these studies analyzed the performance of specific aspects of their research programs. The majority of the evaluations, however, did not analyze the results or determine costs and benefits. Therefore, except for very few, the studies were of limited use in planning future research directions and holding research managers accountable for their activities.

Determining the results from research and development is complex. Overall, the commitment to evaluation varies significantly among departments and agencies.

Most organizations audited do not have all the elements necessary to determine the effectiveness of their science and technology activities.

10.102 CANMET has several formal mechanisms for monitoring and measuring results. Those mechanisms include program evaluations, cost–benefit studies, client surveys, and ongoing monitoring. We consider CANMET to be the most advanced in having in place the elements necessary to monitor results and assess benefits. It has conducted some monitoring activities, client surveys, and cost–benefit analyses. However, CANMET has yet to adopt a standard set of procedures for evaluating economic benefits of its projects that could be used consistently throughout its laboratories and programs.

10.103 At the Communications Research Centre, the clients providing the funding have the primary responsibility for determining the impact of joint scientific activities. The expected impact of research conducted for clients or jointly with clients is discussed during the annual negotiation for funding. The Centre has indicators and targets that provide useful information on its achievement of expected results. However, it does not yet have in place ongoing processes to collect the information.

10.104 Environment Canada periodically conducts formal reviews of selected programs through program evaluations. However, those evaluations tend to focus on operational issues rather than program effectiveness. Cost–benefit and impact analyses after the completion of projects are not conducted consistently.

10.105 At Fisheries and Oceans Canada, the laboratories we examined do not regularly evaluate the effectiveness of their projects. The Department evaluated aquaculture science in 1991 and had initiated evaluations of habitat and fisheries assessment research at the time of our audit.

10.106 At the National Research Council, the corporate program evaluation function features a strategic evaluation process that is still evolving. However, the Council does not have a process for examining research projects and assessing their impacts in a systematic manner at the laboratory level or Council–wide. Evaluations of the three National Research Council Institutes we examined had not been done, although one had been initiated. The Council conducts no regular assessment of projects.

10.107 Departments and agencies should establish the mechanisms and practices they need to demonstrate the results of their science and technology activities and to ensure that their resources are allocated to those activities that provide the greatest benefits to Canada.

Response from Environment Canada: Environment Canada concurs with the need to demonstrate the results of science and technology activities in a consistent manner and will work with other departments to develop an appropriate methodology to demonstrate results. However, it must be recognized that such assessments would be of only limited use for the identification of future research needs and allocation of resources.

Response from Fisheries and Oceans Canada: The Department regularly assesses all S&T activities. In addition, the Department's current Program Review is examining allocation of all funds with regard to benefits to Canadians.

Response from Industry Canada — Communications Research Centre: The CRC agrees with the statement with the caution that incremental overhead expenses be contained.

Response from the National Research Council: NRC has already changed its planning practices to focus on the results of its research activities and to allocate

resources in accordance with the priorities of its new long-range plan.

Response from Natural Resources Canada (CANMET): NRCan acknowledges the importance of measuring and making public the results of its research and development activities.

The Department recognizes the need to integrate, as much as possible, information on project benefits into its resource allocation process. Hence, NRCan will continuously improve its existing processes to ensure better use and dissemination of information on project benefits.

Chapter 11

Science and Technology

The Management of
Scientific Personnel in
Federal Research Establishments

Table of Contents

	Page
Main Points	11-5
Introduction	11-7
Background	11-7
Overview of the government science and technology work force	11-7
Many of the problems in the management of scientific personnel have been known for years	11-10
Audit Objective and Scope	11-10
Overall Assessment	11-12
Detailed Observations	11-13
A More Strategic Approach Is Needed in the Management of Scientific Personnel	11-14
There is a need for more systematic renewal of scientific personnel	11-16
Career development needs to be viewed and managed with a new perspective	11-17
More efforts are required to maintain the skills and knowledge base in research establishments	11-19
Developing a Stronger Capability in Research Management Needs to Be a Real Priority	11-20
Generic knowledge and skills requirements for management positions have not been identified	11-21
There are no structured training and development programs for managers in research establishments	11-22
Managers are not often formally appraised on all their managerial responsibilities	11-22
Long-identified Problems Have Not Yet Been Resolved. Why?	11-23
Conclusion	11-27
Recommendations	11-27
Exhibits	
11.1 Examples of Activities and Achievements of Federal Research Establishment Personnel	11-7
11.2 Some of the Characteristics Generally Associated with Scientific Personnel	11-8
11.3 Distribution of Science and Technology Personnel by Occupational Group in Major Science-Based Departments, as of June 1993	11-9
11.4 List of Reports and Studies Related to the Management of Scientific Personnel	11-10
11.5 Schematic View of the Scope and Approach Used for the Audit	11-11
11.6 Research Establishments Audited and Their Personnel	11-12
11.7 Examples of Good Human Resource Management Practices in Selected R&D Organizations	11-13
11.8 Examples of Good Human Resource Management Practices in Federal Research Establishments	11-14



Assistant Auditor General: *Robert R. Lalonde*
Responsible Auditor: *Jacques Goyer*

Science and Technology

The Management of Scientific Personnel in Federal Research Establishments

Main Points

11.1 The results of research efforts and the credibility of research and development organizations rest ultimately on the expertise, knowledge, skills and motivation of scientific personnel doing the work, and on the way they are managed and nurtured. Many of the significant problems related to the management of scientific personnel in the public service have been known for up to three decades.

11.2 Given the concerns raised in previous studies, our audit focussed on two main issues that appeared to be the most relevant and critical to the present and future performance of federal research establishments operating in a rapidly changing environment: the extent to which due consideration is being given to long-term human resource requirements, and the adequacy of measures taken to develop a stronger and more effective research management capability.

11.3 In the research establishments we audited, there are important variations in the efforts made and the results achieved. Overall, the hiring of newly graduated scientific personnel is too limited to provide for adequate renewal of scientific talent. Career development activities are generally insufficient to ensure the best use of scientific talent and the longer-term "employability" of scientific personnel. The management of scientific professional development activities often does not provide for adequate maintenance of the skills and knowledge base in research establishments.

11.4 In spite of many recommendations that a stronger and more effective management capability be developed, it is still not a clear priority in most of the research establishments we visited. We noted a direct relationship between the level of efforts made by research establishments to improve their management capability and the quality of important aspects of the management of research and development activities reported in Chapter 10.

11.5 In attempting to assess the reasons why all these long-standing problems have not yet been resolved, we concluded that some of the root causes rest with management in research establishments and science-based departments, while others rest with Treasury Board in its role as the employer.

11.6 In our view, significant improvements are required in the management of scientific personnel if departments and research establishments are to tackle successfully the significant challenges facing them. Achieving the objectives and adhering to the priorities to be determined by the government as a result of its current science and technology review and other reform initiatives will depend, to a large extent, on the degree to which sufficient attention is devoted to the management of scientific personnel and to the development of a stronger capability in research management.

11.7 Our recommendations are addressed to management in research establishments and science-based departments and to central agencies, Treasury Board in particular. They highlight the need for tailor-made, flexible solutions.

Introduction

11.8 If Canadians are to benefit from science and technology activities and if the federal government is to continue investing in those activities, it must ensure that it has the capability to both conduct and manage the research that is necessary to meet its objectives and address its priorities. In particular, the government needs to have assurance that scientific personnel working in its research establishments are well managed and are contributing effectively to a productive research capability.

11.9 The results of research efforts and the credibility of research and development organizations depend ultimately on the expertise, knowledge, skills and motivation of the scientific personnel doing the work, on the way they are managed and nurtured, and on the extent to which their contribution is

valued, recognized and rewarded. This requires a legislative and administrative framework, as well as systems and practices, that are appropriate for managing those particular personnel.

11.10 This chapter outlines the results of our audit of the management of scientific personnel in a number of federal research establishments.

Background

Overview of the government science and technology work force

11.11 Science and technology personnel in government research and development laboratories are involved in a broad range of activities that have an impact on the life and well-being of Canadians. For example, these activities can result in regulations to protect the environment or in the resolution of technical problems for Canadian industry. Exhibit 11.1 presents some of the

The following are examples of some of the activities and achievements of scientific personnel working in the research establishments we visited.

- Three scientists are the inventors of the Brewer Ozone Spectrophotometer, an instrument for measuring ozone in the atmosphere. This instrument has become an accepted standard around the world and is manufactured by a Canadian private sector company under a royalty license agreement, with 90 percent of sales outside Canada. (Environment Canada: Climate and Atmospheric Research Directorate)
- Scientists are providing information on fish migration for different species and information on the ocean environment to assist in the development of a scientifically informed Canadian position on boundary delimitation in international negotiations. (Fisheries and Oceans Canada: Bedford Institute of Oceanography)
- Utilization of waste materials as substitutes for cement in the production of concrete has resulted in the availability of concrete with enhanced physical properties at lower cost, and in the elimination of disposal requirements for the reused waste materials. The Hibernia platform and the Prince Edward Island fixed-link projects will use these waste materials as substitutes for cement in the production of concrete. The impact has been conservatively estimated outside government at some \$10M per year saving. (Natural Resources Canada: CANMET)
- The management of a program aimed at supporting the efforts of Canadian industry to develop and establish a first generation of a commercial mobile satellite system (MSAT). This system will provide voice and data communication to vehicles, aircraft, ships and other portable stations located anywhere in Canada, for a variety of applications such as resource exploration, trucking, railways, forestry, fisheries, construction and law enforcement. (Industry Canada: Communications Research Centre)

Exhibit 11.1

Examples of Activities and Achievements of Federal Research Establishment Personnel

activities and achievements of personnel working in a few federal research establishments.

11.12 As indicated in Chapter 10 (Exhibit 10.1), managing research and development presents many challenges, especially because of uncertainty about the outcome of the research activities and the difficulty of measuring results or impacts. Furthermore, scientific personnel have their own expectations, values, attitudes and motivation. For example, they strive for peer recognition of their scientific achievements. Exhibit 11.2 describes some of the characteristics generally associated with scientific personnel.

11.13 In 1993–94, the total science and technology work force in the federal government was estimated at approximately 35,000. Most of these personnel were employed by 17 departments, agencies and Crown corporations. Of that number, approximately 19,000 were involved in

research and development activities and in related scientific activities, in some 150 federal laboratories.

11.14 In departments, scientific and technical occupations are classified into 20 different groups, each with a different salary scale. Exhibit 11.3 shows the distribution of science and technology personnel by occupational group in major science-based departments. Of these personnel, approximately 10,000 were engaged in research and development activities in natural sciences and engineering.

11.15 With a few notable exceptions, such as the Institutes of the National Research Council (NRC), government research establishments are subject to the same legislative and administrative framework for the management of their human resources as the rest of the public service. That framework includes the *Public Service Employment Act*, the *Public Service Staff Relations Act* and

Exhibit 11.2

Some of the Characteristics Generally Associated with Scientific Personnel

Source:

Michael K. Badawy,
Management as a New Technology,
1993, McGraw–Hill, Inc.
With permission of
McGraw–Hill, Inc.

Although there are enormous variations in individual personalities and behavioral patterns, both within and among different professional groups, the following represent some of the characteristics generally associated with scientific personnel:

- well educated and usually hold advanced academic degrees and other professional credentials;
- display a high degree of creativity, intelligence, and capacity for learning;
- thrive on intellectually challenging assignments;
- seek individual autonomy and flexibility as important elements of an organization's general work climate;
- value their freedom in pursuing intellectual research streams and lines of inquiry;
- have a high degree of curiosity with a deep desire in learning and acquiring knowledge for its own sake;
- have strong personalities and individualized ways of thinking and value systems; and
- have a high propensity for risk taking, experimentation, and trying new approaches to known phenomena.

Distribution of Science and Technology Personnel by Occupational Group in Major Science-Based Departments, as of June 1993*

Occupational Group	Agriculture	Energy, Mines and Resources, Forestry	Fisheries and Oceans	Communications	Environment	National Defence	National Health and Welfare	Total
AG	Agriculture	275	1	257	2	256	276	
BI	Biological Sciences	40	28	449	87	26	992	
CH	Chemistry		30	42		559	205	430
DS	Defence Scientific Service					488	6	559
EN-ENG	Engineering	37	68	67	295			1,197
EN-SUR	Land Survey		187	50		2		239
FO	Forestry		158		3	2		163
MD	Medicine					1	191	192
MT	Meteorology			602				602
PC	Physical Sciences	473	91	3	502	22	26	1,117
PH	Pharmacy					2	43	45
SG	Scientific Regulations & Patents	1	12	105		7	287	412
SE-RES	Scientific Research	655	634	288	48	8	113	1,959
SE-REM	Scientific Research Manager	51	63	23		1	18	198
VM	Veterinary Medicine	563				1	25	589
DD	Drafting and Illustration	33	99	26	10	39	523	5
EG	Engineering and Scientific Support	1,336	933	705	29	1,402	1,005	735
EL	Electronics	10	52	79	383	68	468	5,943
GT	General Technical	27	52	771	67	1,061	168	9
TI	Technical Inspection		2			6	445	1,069
							6	2,158
								459
Total Distribution	3,028	2,791	2,697	776	4,577	3,730	1,735	19,334

* This Table was prepared before the government restructuring announced on June 25, 1993.

Source: Treasury Board Secretariat – June 1993, INCC001

Treasury Board and Public Service Commission policies and directives.

Many of the problems in the management of scientific personnel have been known for years

11.16 As noted in Chapter 9, various studies and reviews have been conducted in the past three decades on the management of science and technology activities, and of research and development in particular. Those studies and reports have often commented on issues related to the management of the government science and technology work force. Other studies that focussed more on human resource management have also been conducted. Exhibit 11.4 provides a list of some of the key reports and studies that have identified issues related to the

management of scientific personnel in the federal public sector.

Audit Objective and Scope

11.17 Given the problems identified in previous studies, this audit focussed on two main issues that appeared most relevant and critical to the present and future performance of federal research establishments operating in a changing environment. More specifically, and in the light of changing science and technology priorities and objectives, the audit objective was to determine:

- the extent to which due consideration has been given to long-term human resource requirements, in particular to systems and practices for:
 - bringing in newly graduated scientific personnel,

Exhibit 11.4

List of Reports and Studies Related to the Management of Scientific Personnel

The following are some of the key studies and reports that have identified issues related to the management of scientific personnel in the federal public sector over the past three decades.

- The *Report of the Royal Commission on Government Organization* – commonly referred to as the “Glassco Commission Report” (1963)
- *A Science Policy for Canada*, Report of the Senate Special Committee on Science Policy, Volume 3, A Government Organization for the Seventies – commonly referred to as the “Lamontagne Report” (1973)
- The *Ministerial Task Force on Program Review* – commonly referred to as the “Nielsen Task Force” (1986)
- *The Changing Role of Government Laboratories*, Organization for Economic Co-operation and Development (OECD) (1989)
- The Report of the Federal Science and Technology Expenditures Committee of the National Advisory Board on Science and Technology, *Revitalizing Science and Technology in the Government of Canada* – commonly referred to as the “Lortie Report” (1990)
- The *Second Report of the Public Service 2000 Task Force on Staff Training and Development* (May 1991)
- The Report of the Working Group on the Management of S&T Human Resources to the Steering Committee on the Management of Science and Technology, *Strategic Issues, Objectives and Recommendations for the Management of the Scientific, Engineering and Technical Community in Key Federal Science-Based Departments* (1992)
- The discussion paper produced by the Professional Institute of the Public Service of Canada (PIPSC), *Public Service Intramural Research and Development: Problems and Remedies* (1983); and its report, *Issues Facing Professional Employees in the Federal Public Service* (1994)

- ensuring that the talent of scientific personnel is put to best use in the future, and
- ensuring that research establishments maintain the skills and knowledge base required;
- the adequacy of any measures taken to develop a stronger and more effective research management capability.

11.18 Exhibit 11.5 presents a schematic view of the scope and approach used for this audit.

11.19 Our audit covered seven research establishments, in the same departments as those mentioned in Chapter 10. We did not include the National Research Council in this chapter because it is a separate employer and thus operates under a significantly different legislative and administrative framework for human resource management. For example, it can establish its own job evaluation and remuneration system. Exhibit 11.6 provides a list of the research establishments we audited as well as the

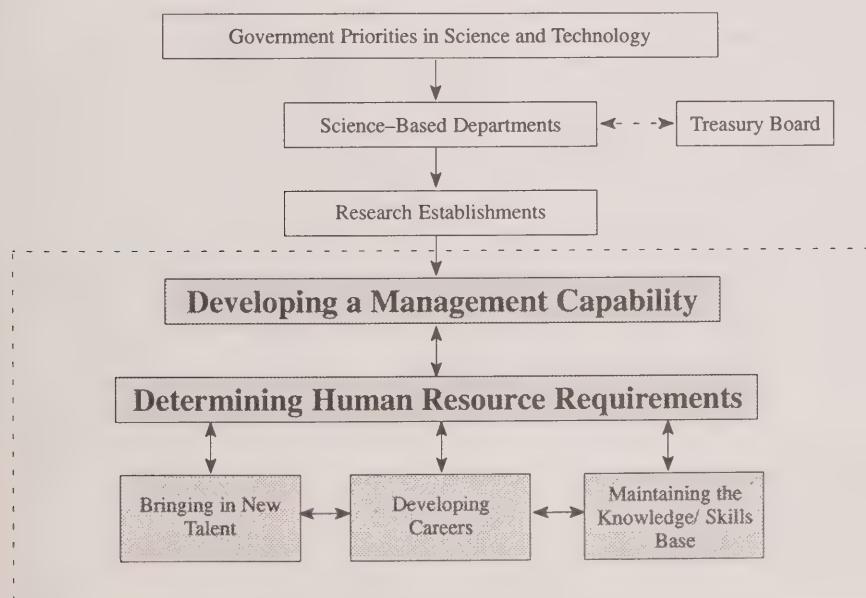
total number of personnel employed in them.

11.20 For the purpose of this report, the term “scientific personnel” includes the scientists and engineers working in the federal research establishments audited. It may be argued that there are significant differences between research scientists (SE-RES) and other scientists, such as biologists, chemists, or physical scientists. However, the observations reported in this chapter apply to all of those scientists and engineers unless otherwise specified. While we recognize the importance of the contribution of technologists and technicians to science and technology activities, and acknowledge that some of the identified problems may also apply to them, we did not include them in the scope of this audit.

11.21 The research managers covered by our observations carry titles such as project leader, section head, division chief, program director, program principal and research establishment director or equivalent. Some of these managers belong to the research manager

Exhibit 11.5

Schematic View of the Scope and Approach Used for the Audit



(SE-REM) group or to the Executive (EX) group, while most others belong to scientific groups such as engineers (EN-ENG), biologists (BI), and physical scientists (PC).

11.22 In conducting the audit, we carried out the following activities:

- interviews in each research establishment with senior managers, including the director, and group discussions with bench scientists and managers;
- interviews in each department with assistant deputy ministers and other senior managers responsible for the research establishments visited, including meetings with human resource managers and officers at various levels;
- a review of studies, reports and analyses conducted by departments, research establishments or others;
- gathering and analysis of departmental and research establishment documentation related to human resource systems and practices; and
- interviews with officials of the Treasury Board Secretariat, the Public Service Commission, and the Canadian Centre for Management Development.

11.23 In addition, we contacted senior managers and human resource managers

in a number of research and development organizations in Canada and the United States to learn about their practices in the management of scientific personnel. Exhibit 11.7 provides examples of good human resource management practices reported by some of those organizations.

Overall Assessment

11.24 Many of the problems in the management of scientific personnel identified in studies conducted over the last three decades still have not been corrected. However, there are important variations in the efforts that research establishments have made to address the problems and in the results achieved.

11.25 Managers in research establishments and science-based departments have recognized the need to determine their long-term requirements for scientific personnel and to develop means to ensure that such personnel will be available when needed. Despite initiatives they have taken, we found that, overall, substantial improvement is still required. More specifically, the following deficiencies have been noted:

- hiring of newly graduated scientific personnel is too limited to provide for adequate renewal;
- career development activities are insufficient to ensure best use of scientific

Overall, significant improvements are required in the management of scientific personnel in research establishments.

Exhibit 11.6

Research Establishments Audited and Their Personnel

Source: Data provided by the research establishments audited

Environment Canada		
Climate and Atmospheric Research Directorate, Downsview, Ont.		207
National Water Research Institute, Burlington, Ont.		271
Fisheries and Oceans Canada		
Bedford Institute of Oceanography, Dartmouth, N.S.		254
Pacific Biological Station, Nanaimo, B.C.		135
Industry Canada		
Communications Research Centre, Nepean, Ont.		396
Natural Resources Canada		
CANMET/Energy Research Laboratories, Nepean, Ont.		159
CANMET/Mineral Sciences Laboratories, Ottawa, Ont.		138

talent and longer-term “employability” of scientific personnel;

- management of training and development activities does not provide for adequate maintenance of the skills and knowledge base in research establishments.

11.26 In spite of many previous recommendations that a stronger and more effective management capability be developed, we found that, with a few exceptions, this is still not a clear priority in most of the seven research establishments we visited. In our view, there appears to be a direct relationship between the level of effort devoted to developing a stronger management capability and the quality of important aspects of the management of research and development activities — for example, setting direction and selecting and managing research projects — reported in Chapter 10.

11.27 We have attempted to assess the reasons why all these long-standing issues have not been resolved. In our opinion, some of the causes of this inertia include the fact that no one has been assigned responsibility for implementing the

recommendations of previous studies, the current uncertainty about future science and technology activities and budgets, and the impact of systemic constraints to the effective management of scientific personnel, such as the Work Force Adjustment Directive. Overall responsibility for addressing the issues and the root causes identified in this audit rests with management in research establishments and science-based departments, as well as with Treasury Board in its role as the employer.

11.28 Unless significant improvements are made in the management of scientific personnel, there is a serious risk that research establishments will not be able to cope with the rapidly evolving context in which government research activities are taking place, and with the changes that might be required as a result of the current science and technology review and other reform initiatives by the government.

Detailed Observations

11.29 The attention devoted to the management of scientific personnel, and the results achieved by management in research establishments and science-based departments, vary from one department to

The following are examples of good human resource management practices reported by one or more of the R&D organizations we contacted.

- A real commitment to the management of their scientific personnel.
- Planned turnover in laboratory personnel to make room for new talent.
- A career management program that includes options to move out of the laboratory into other parts of the organization.
- Use of parallel career ladders for scientists or engineers and managers.
- A minimum level of training and development to be taken by each employee per year.
- Organized programs of visiting speakers or colloquium.
- Special funding for mandate-related research projects to explore new avenues.
- Use of generic qualification profiles in the selection of managers.
- Systematic training and development programs for various levels of managers.
- Authority delegated to junior managers to reward significant achievement or special effort through “on the spot” awards.

Exhibit 11.7

Examples of Good Human Resource Management Practices in Selected R&D Organizations

Senior managers in research establishments recognize that the current mix of skills may not be appropriate.

another and from one research establishment to another. We found examples of good human resource management practices in all seven research establishments we visited, but some had more than others. Exhibit 11.8 indicates some of those good practices. Nevertheless, in all the issues we audited, significant improvement is still required.

A More Strategic Approach Is Needed in the Management of Scientific Personnel

11.30 Strategic management is a process through which the basic mission, objectives and priorities of an organization are determined in light of what the future might hold. It is also a process through which an organization allocates and develops its human resources in order to

be able to achieve its objectives in the long term.

11.31 Thus, we expected to find in place flexible systems and management practices to ensure that creative scientific personnel will be available when needed, in the right numbers and disciplines, and with the right experience to achieve intended goals and objectives. Furthermore, we expected to find human resource management systems that effectively support the mission and objectives of research establishments.

11.32 As the direction of research in the federal government is changing, and relationships with Canadian industry and other clients are evolving toward more use of partnerships, senior managers in the research establishments we visited recognize that the current mix of skills may not be appropriate, and that there is a

Exhibit 11.8

Examples of Good Human Resource Management Practices in Federal Research Establishments

The following are examples of some of the good human resource management practices we observed in one or more of the seven federal research establishments we visited.

- A special fund available on an annual basis for the hiring of some recently graduated scientists from employment equity target groups.
- Formal guidelines proposing a minimum level of annual training and development for each employee.
- An educational and professional development program for periods in excess of three months.
- Formal guidelines and criteria on conference attendance.
- A special program that brings in, once a year, a selected top expert to give lectures and meet with the research establishment staff over a period of a week.
- A written plan of succession with training and development to be undertaken by potential candidates for key management and scientific positions.
- An employee advisory committee and the executive management committee of a research establishment, each including a representative from the other committee, to improve communications between management and staff.
- An Emeritus Designation Program to retain and recognize the contribution of high-performing individuals without affecting opportunities for the recruitment of new scientific personnel.
- A process of upward feedback to solicit the views of employees about the strengths and weaknesses of their supervisors' management practices, with follow-up to address the shortcomings.
- An annual award for the best publication from the laboratory personnel.

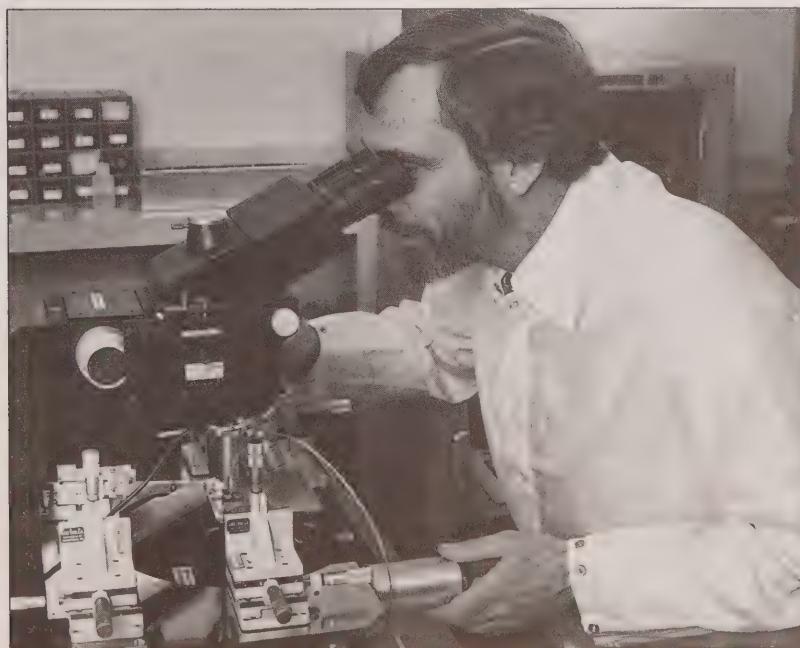
need to acquire people with new skills and different kinds of knowledge. For example, some managers indicated that they should have fewer research scientists (SE-RES) and more engineers; others said they needed people in different disciplines, or more people in a particular discipline. In addition, managers of research establishments and senior departmental managers all stressed the need to increase the ratio of non-permanent (term) to permanent (indeterminate) employees in order to increase their flexibility to staff research projects. However, most of them reported that attempting to implement such changes in a context of unpredictable cuts in staff and budget is difficult.

11.33 Only limited formal efforts have been made to determine long-term human resource requirements in research establishments. In most cases, the main objectives of those efforts were to implement the downsizing of personnel or to control the numbers of indeterminate and term employees. Where formal plans exist, they focus on such things as

employment equity targets or the effects of the age distribution of scientific personnel on potential retirements. (In one research establishment, however, plans were made and carried out to redeploy and reorient a significant number of scientific personnel in a new area of research.) In our view, the lack of formal efforts to determine long-term human resource requirements is due to the belief among some managers and other scientific personnel that, as reported in Chapter 10, there is limited value in trying to plan for the future.

Only limited formal efforts have been made to determine long-term human resource requirements in research establishments.

11.34 In spite of management's stated intention to do so, we did not often find that an infrastructure had been put in place in research establishments or departments to support the ongoing identification of human resource requirements. For example, inventories of existing skills and definitions of the core skills and competencies needed, have not been produced. We note, however, that one research establishment recently developed a questionnaire for that purpose.



A scientist at the Communications Research Centre tests the characteristics of a new optical device for high-speed communications.

Credits: Communications Research Centre

There is a need for more systematic renewal of scientific personnel

11.35 Renewal of skills and knowledge, through the recruitment of newly graduated scientific personnel, is essential if research establishments are to remain creative and productive in the long term.

11.36 Previous studies identified the need for renewal of scientific personnel. The problems reported include the need to revitalize the scientific work force — especially the research scientist (SE-RES) group — due to its ageing population, low turnover, low level of external recruitment, and the changes in the orientation of research establishments. In 1993, the average age in this group was about 47, among the highest in the public service. While it may be argued that the average age is also increasing in some other groups in the public service population, in the case of scientific personnel it is a cause for greater concern. As the Lortie report said:

... the nature of the scientist's contribution...changes meaningfully and appropriately [over time]...There

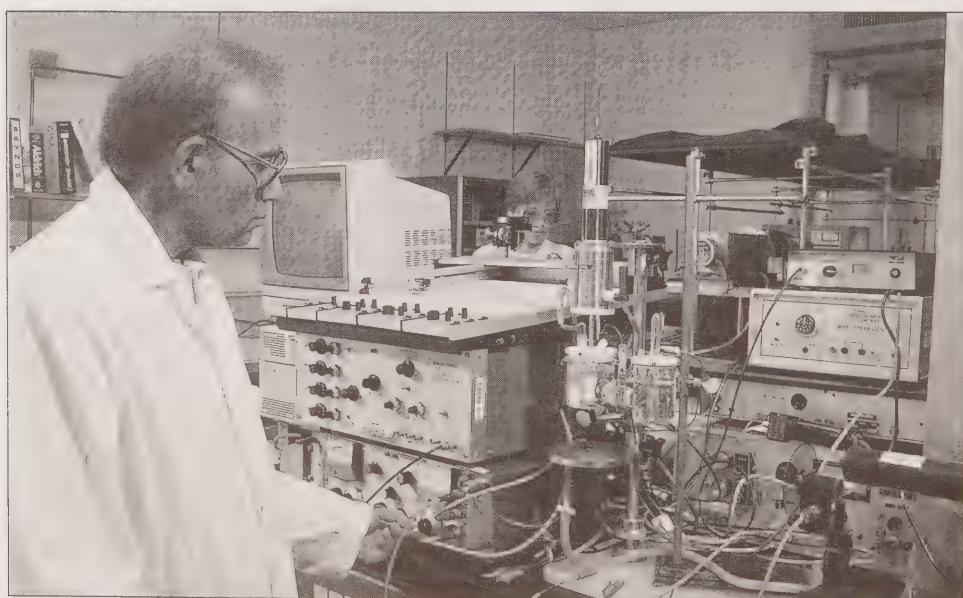
is general agreement, however, that the most creative technical period in scientists' and engineers' careers tends to end in their thirties or early forties, depending on the quality of the individuals and the environment in which they work...There are several explanations for this phenomenon...Whatever the reason, it is clear that a steady flow of young new scientists and engineers is critical to the continuing revitalization of a scientific organization's technical excellence.

11.37 In this context, we expected that action would have been taken to ensure the continuous hiring of sufficient numbers of recently graduated researchers, on both an indeterminate and a term basis, as well as a significant flow of students, visiting scientists, and post-doctoral fellows.

11.38 Overall, we found limited and insufficient renewal of scientific personnel. All research establishments reported a turnover among scientific personnel of less than 2 percent per year over the last few years, even though it has been recognized that the minimum

A scientist in CANMET monitors experiments developing new mine waste disposal technology.

Credits: CANMET



desirable influx of new professional personnel in research and development organizations is from 6 to 8 percent annually.

11.39 The efforts made to encourage early retirement of scientific personnel are not sufficient to create opportunities for the hiring of enough young graduates. For example, in some research establishments, scientific personnel have been provided with detailed information on the retirement process, and on the benefits that would be available to them should they decide to retire. One research establishment confirmed that this has led to a few retirements. In one department, a proposal to encourage voluntary early retirement of scientific personnel was developed and submitted to Treasury Board Secretariat. The Secretariat indicated an interest in the proposal but pointed out that the existing legislation on wage restraint prevented any such program.

11.40 All but one of the research establishments we visited have established an Emeritus Designation Program for retired scientific personnel. This is a program designed to retain and recognize the contributions of high-performing individuals without affecting opportunities to recruit new scientific personnel. Although senior managers in some research establishments recognize that they could use this program more, overall it can be applied only to a limited number of people.

11.41 Nevertheless, there has been some renewal. Funding for programs such as the Program of Energy Research and Development (PERD) and the Green Plan (known as "renewable" or "sunset" programs) and from contracts with external clients has provided for a large proportion of the limited new hirings (both term and indeterminate) in the

research establishments we visited. One research establishment, however, allocated Green Plan and other funding to hire a significant number of new personnel. All managers we interviewed agreed that the use of term appointments provides much-needed flexibility to meet fluctuating demands; however, it does not solve adequately the problem of the lack of renewal of scientific personnel.

11.42 All but two research establishments reported that the hiring of summer students, co-op students and post-doctoral fellows has remained generally constant over the last few years. In one department, a special fund created by a deputy minister in late 1989 allows a small number of recently graduated scientists to be hired from employment equity target groups. Starting in 1988, Treasury Board made available a pool of person-years with funding to allow for the recruitment of a limited number of young scientists over a three-year period; that program was extended for another three years, but without the funding.

11.43 The fact that recruitment of newly graduated scientific personnel has been limited can be explained in part by fiscal restraint and downsizing; however, in our view, the inadequacy of career development programs and the absence of related support mechanisms, such as assignment and exchange programs, are contributing factors. If renewal is to occur, there is a need for serious rethinking of the notion of a career in the public service, and for change in the culture of management and scientific personnel concerning that notion.

Career development needs to be viewed and managed with a new perspective

11.44 Traditionally, for most scientific personnel in the government, a successful career has meant advancing from junior to senior levels while remaining in the same

Renewal of scientific personnel is limited and insufficient.

There is a need for serious rethinking of the notion of career in the public service. This will require a significant change in mindset and expectations.

field of scientific expertise and in the same research establishment. That may have been appropriate in periods of expansion and staff increases. The current context, however, with its emphasis on partnerships, wealth generation and cost recovery — and with possibly less need or less funding for long-term research in some establishments — calls for a complete rethinking of the concept of career, and of the mechanisms needed to support it. Today, a career can be made up of a succession of positions with different employers, mixed with periods of retraining or career reorientation. For example, a professional might have started in a teaching capacity, then spent some years on exchange with the public sector, a length of time back at university to take senior management training and, after a few more years, might finish his or her career as a senior executive in the private sector. Career management, then, should reflect more than the employees' wish to develop their potential and the organization's desire to ensure that the needed scientific talent will be available to meet its objectives. More and more, it must also include concern — by both management and employees — for longer-term employability. It should also consider the need for the upgrading of skills and knowledge and for broadening work experiences, as well as help to find assignments or even employment outside research establishments when necessary or appropriate. Because management and the employee share responsibility for career development, such a departure from the traditional concept of career will require a significant change in mindset and expectations on the part of both management and employees.

11.45 Various studies such as the Lamontagne report and the Lortie report have identified the need for career development activities to support the

movement of scientists into other career paths. This would help to meet downsizing targets, allow for adequate level of turnover and make the best use of the talents of scientific personnel.

11.46 Few mechanisms are in place to ensure that the talents of scientific personnel will be put to their best use in the future, and that openings are systematically created to provide for the hiring of new and younger personnel. For example, there are no technical career paths for scientific personnel who belong to occupational groups other than the SE-RES group, such as the biological sciences, engineering and physical sciences occupational groups, beyond a certain level in the hierarchy of jobs. Beyond this level, only a managerial career path exists. In the White Paper on the Renewal of the Public Service (1990), the government stated its intention to "examine the creation of separate but parallel career streams for professional or technical specialists." At the conclusion of our audit, such career streams still had not been developed.

11.47 Initiatives by research establishments to provide for career development are limited and are not carried out systematically. For example, except in cases of rotational assignments as section heads or project leaders, scientists are not often offered developmental assignments outside their research establishments, even on a temporary basis, to try out other career options such as policy work, business development or research management.

11.48 A structured approach to the eventual replacement of key managers and other scientific personnel is followed in only two of the seven research establishments we visited. The other establishments rarely go beyond identifying potential replacements and, in

the case of managerial candidates, providing them with some on-the-job training.

More efforts are required to maintain the skills and knowledge base in research establishments

11.49 In addition to providing for the renewal and career development of scientific personnel, research establishments must also ensure that the skills and knowledge of their staff is maintained by helping them to keep abreast of the latest developments in the appropriate scientific disciplines. In so doing, research establishments will strengthen their capacity to remain productive. At the same time, it will contribute to the longer-term “employability” of their scientific personnel.

11.50 Previous studies have identified problems in maintaining the skills and knowledge of scientific personnel. For example, the Second Report of the Public Service 2000 Task Force on Staff Training and Development (1991) dedicated an entire chapter to the need for a framework for the training and development of scientific personnel. It recommended a comprehensive management training program as well as self-development activities (educational leave and exchanges); protection, during times of fiscal constraint, of a fixed percentage of the operating budget for training and development; and removal of restrictions on conference travel.

11.51 Given all of those concerns, we expected that research establishments would have developed adequate means to maintain the required skills and knowledge base. Such means could include balanced research project portfolios, participation in appropriate training and development programs,

attendance at relevant scientific conferences, and access to adequate electronic information networks and library services.

11.52 Overemphasis on short-term research could lead to the erosion of the knowledge base in research establishments. As reported in Chapter 10, there is a risk that an overemphasis on short-term and problem-solving research could result in an erosion of the knowledge base needed to maintain a leading edge in key scientific areas. This could affect the capability of research establishments to tackle problems likely to occur in the future — a concern raised by people we interviewed in most of the research establishments we visited. In some of the private sector research and development organizations we contacted, one of the means to counteract this problem is a clear support for mission-related research to explore new avenues, such as the development of sound technical ideas that may not fit into current business plans but that offer potential for the future.

11.53 There is a lack of focus and management support for training and development activities. In most research establishments, senior managers have not sent a strong message about the importance of developing and maintaining the skills and knowledge critical to the organization. For example, only two of the seven research establishments visited have formal guidelines proposing a minimum level of annual training and development for each member of their scientific personnel, a practice found in some of the well-managed research and development organizations in the private sector. Except in two research establishments where business plans provide a sense of direction, training activities are largely determined

Training and development activities are largely determined without the benefit of any strategy or plan.

individually, between employee and supervisor, without the benefit of any strategy or plan that would take into consideration the goals and priorities for professional development activities, in line with the overall goals of the research establishment.

11.54 Formal training in areas that are important and relevant to research establishments in the current context of emphasis on ensuring return on government investment — such as marketing, business development, finance, management of intellectual property and project management — has not been provided to scientific personnel or managers in most research establishments. Such training would at least give them an appreciation for these functions so that they would know when it was necessary to call in experts.

11.55 Previous studies identified problems in developing and maintaining the knowledge base of research establishment personnel through attendance at scientific conferences. For example, as mentioned in the Lortie report, the effective use of these “instruments” has been undermined by the failure of central agencies and senior departmental managers to appreciate them as “critical and necessary means of pursuing an S&T establishment’s mission and specific goals.”

11.56 All research establishments prepare plans for conference attendance with considerable detail on justification and cost, usually at the beginning of the fiscal year. However, only three of the seven research establishments we visited have developed guidelines for conference attendance. In only one case do the guidelines stipulate that, after attending a conference, a delegate should prepare a written report with all details of interest to the research establishment.

11.57 In some of the well-managed private sector research and development organizations we contacted, maintenance of the knowledge base is addressed more comprehensively and systematically than in the research establishments we audited. Their approach is not limited to formal courses and conference attendance. It also includes well-organized seminar series that attract scientific experts to speak on topics of importance to laboratories, visits and exchanges from and to other laboratories, and access to information through electronic networks or library services.

11.58 Particular efforts are made in two of the seven federal research establishments to provide secondments of their scientific personnel to private sector or other public sector organizations, and vice versa. In most of the research establishments, however, such means as programs of visiting speakers are not planned to maintain or develop the skills and knowledge of scientific personnel, and library services are perceived to be gradually deteriorating. At the same time, most scientific personnel interviewed indicated that they have adequate access to electronic information networks.

Developing a Stronger Capability in Research Management Needs to Be a Real Priority

11.59 An effective management cadre is crucial in developing a strong research and development capability. The Lortie report said:

R&D management is a crucial role in successful R&D organizations and one that demands the careful selection and development of some of the best scientific talent in the organization. Thus, best practices place significant emphasis on finding managers who not only understand research, the scientific mission of their

organizations and their interaction with the larger objectives of the parent organization, but also understand R&D management.

11.60 Previous studies reported serious shortcomings in the management of research and development, particularly in the management of scientific personnel. For example, the Lortie report noted a general decline in government attention, at the sectoral and laboratory levels, to effective selection and development of managerial capability. At the departmental and government-wide levels, it found a lack of effective mechanisms for the training and continuing development of managers of science and technology activities. The result was, the poorer the management, the greater the use of bureaucratic measures and micro-management in place of a proper management function. The report went on to say, “The result is that fewer and fewer good people aspire to careers in S&T management.”

11.61 In addition, the 1992 report of the (Interdepartmental) Working Group on the Management of S&T Human Resources to the Steering Committee on the Management of Science and Technology (Science Assistant Deputy Ministers Committee) indicated that one of the four strategic issues requiring senior management attention was the need to improve skills in the management of scientific personnel and organizations.

11.62 Given those concerns, we expected to find clear signals from senior management about the importance of developing a stronger and more effective management capability in research and development. For example, we expected to find an infrastructure that would include means to identify and develop managerial talent and that would stress

accountability for managerial responsibilities in research and development. We also expected to find that action would be taken to improve managerial capability in a significant way and with a sense of urgency, in view of increasing globalization, shrinking resources and changes in the direction of science and technology activities.

Generic knowledge and skills requirements for management positions have not been identified

11.63 We did not find, in any of the seven research establishments we visited, generic qualification profiles similar to the “*Profile of Public Service Leaders and Managers*” used in the selection and development of supervisors and managers in the Public Service, including those in the Executive Group. However, two of the research establishments have drafted an overall profile for their managers. Appropriate profiles would reflect the specific requirements of research and development managers at various levels, from project leader to research establishment director. They would include the knowledge, skills and behaviour now needed by research managers, who increasingly have to interact with clients or other organizations, manage contracts, address intellectual property issues and give more emphasis to the management of scientific personnel. In the absence of generic qualification profiles, potential candidates or incumbents cannot have a clear picture of the skills or knowledge common to each of the various management levels. Thus, they do not know what is generally required to be selected for positions at those levels, and the need for generic training and development programs cannot be determined by management.

Knowledge and skills common to each of the various management levels are not known by potential candidates or incumbents.

There are no structured training and development programs for managers in research establishments

11.64 The research establishments we visited have no organized, systematic management training and development programs for research and development managers. This is in contrast to practices in well-managed private sector organizations, which do have such programs. Moreover, performance appraisal reports on managers and supervisors rarely mention a need for management training.

11.65 While most of the managers we interviewed have taken some general management training, only a few have taken specialized courses in managing research and development. For example, the Canadian Centre for Management Development reported that, in the past four years, all science-based departments and agencies in the federal government have sent a total of 210 participants, out of a potential estimated clientele of about 5,000, to the course on “Leadership and Management for Scientists”. The course is aimed at developing middle-management skills and is offered twice a year. Some departments, however, have made limited use of other sources of similar training.

11.66 We did note that, over the last few years, senior management in one department has introduced a number of practices to improve the quality of general management in the context of a “Total Quality Management” initiative. Those practices include a process of upward feedback, whereby employees rate the performance of their supervisors with a view to helping them improve their managerial performance. Staff in that department, including scientific personnel, were also offered courses on project

management, team building, effective conduct of meetings and managing poor performance, and mechanisms to manage change.

Managers are not often formally appraised on all their managerial responsibilities

11.67 The focus of the performance appraisal process is on scientific activities and achievements. With some notable exceptions, performance appraisal reports on managers and supervisors often are silent on the incumbent’s managerial responsibilities. With the exception of cost recovery, no objectives or only very general ones appear to have been set for managerial responsibilities and so managerial performance cannot be adequately assessed. References to human resource management responsibilities in performance appraisal reports, or in management contracts where they exist, usually relate to administrative duties, such as completing staff performance appraisal reports on time, and to employment equity targets. Little or no reference is made to other important responsibilities in human resource management, such as ensuring good communication, developing and mentoring junior scientists and dealing with poor performance.

11.68 The lack of accountability for managing people is summarized in the following statement made by a departmental corporate manager in early 1994:

We must recognize that there has been a major cultural shift in management and most managers haven’t bought into it yet. The shift is from strictly “issues” management to more “people” management, but our managers are still being rewarded for managing issues and there is no

In performance appraisal reports, references to human resource management responsibilities usually relate to administrative duties.

emphasis from the senior ranks for doing a good job of managing people.

11.69 In our view, the absence of strong measures to improve significantly the management capability of research and development managers is a key factor contributing to the deficiencies identified in Chapter 10, such as the absence of direction and the lack of rigor in selecting and managing research projects. We believe it also accounts, in part, for some of the deficiencies identified in this chapter, such as the inadequate development of the scientific personnel who will be needed over the long term. We have noted that there appears to be a direct relationship between the level of effort to develop a stronger management capability and the quality of important aspects of the management of research and development activities reported in Chapter 10.

11.70 While the need for strong management capability in research establishments has been recognized for many years, the challenges confronting managers will be even greater in the future. The significant changes that can be expected as a result of the current government science and technology review and other reform initiatives, added to the rapidly evolving context in which research establishments operate, will require well-developed managerial skills if new priorities are to be adhered to. In our view, making the development of a stronger and more effective management capability a real priority is long overdue.

Long-identified Problems Have Not Yet Been Resolved. Why?

11.71 Overall, we found that key problems associated with the management of scientific personnel, some of which were reported as early as 1963, are still unresolved. We have attempted to

identify some of the underlying factors contributing to this inertia.

11.72 **No one assigned responsibility for implementing the recommendations of previous studies on the management of scientific personnel.** The previous studies and reports referred to earlier (Exhibit 11.4), which identified issues related to the management of scientific personnel, were commissioned by various bodies. The recommendations were thus directed to a variety of authorities, including the House of Commons, the Senate and the Prime Minister. We could not find formal commitment by the government to implement the recommendations of those reports, and no one was assigned the responsibility for taking corrective action.

11.73 **Lack of clear direction.** In our opinion, deficiencies in strategic priority-setting for science and technology activities at both the government and the departmental levels undermine effective and efficient management of scientific personnel. As stated in Chapter 10, efforts have been made by all research establishments to set direction for their research and development activities, but some have made more progress than others. The lack of a clear set of goals, priorities and expected results impacts on their ability to plan for and manage human resources effectively. In the absence of clear direction it is not possible to determine with any precision the types of knowledge and skills needed, the career paths to be developed, the level and types of new talent to be brought in, and the type of scientific professional development activities needed to remain at the leading edge in required disciplines.

11.74 **Uncertainties about science and technology activities and budgets.** In addition to the lack of clear direction,

The challenges confronting managers will be even greater in the future.

Present Treasury Board policies and systems tend to cater to the needs of the public service in general “for fear of creating precedents”.

uncertainties about science and technology activities and budgets over the medium and longer term, and the downsizing of the work force are making human resource management much more difficult. For example, effective career management is impaired by uncertainty about the funding of a particular research area or project, and by the almost automatic abolition of positions when scientific personnel leave, which in turn makes renewal that much more difficult.

11.75 Overemphasis on uniformity in the current approach to human resource management in the public service. In its role as the employer, Treasury Board, assisted by the Secretariat, is ultimately responsible for establishing a framework for the effective and efficient management of human resources. That includes the development of human resource policies and systems to meet the requirements of all the diverse entities in the public service, including research establishments. To deal with human resource issues, the Human Resource Policy Branch of the Secretariat is organized on a matrix of functional and departmental portfolios. As for employee bargaining units, they are organized on an occupational-group basis that cuts across programs and departments.

11.76 These structures and the emphasis on uniformity in the approach to human resource management make it difficult to address human resource issues from the standpoint of efficiency and effectiveness in research establishments. Although there have been frequent communications on this subject between science-based departments and the Treasury Board Secretariat, present policies and systems tend to cater to the needs of the public service in general; little consideration is given to sectoral specificities or to small, somewhat

marginal entities, each with different needs, “for fear of creating a precedent”. In that context, it is not surprising that, at the time of our audit, we could not find anyone in the Human Resource Policy Branch of the Treasury Board Secretariat charged with responsibility for dealing with issues related specifically to the management of scientific personnel. Furthermore, no comprehensive data base exists on human resources involved strictly in science and technology. This makes examining the characteristics and needs of this community more difficult, as pointed out in a previous study.

11.77 The scattering of research establishments. In science-based departments, there are more than 120 research establishments scattered across Canada. Each of those departments has its own culture, specific priorities and problems. In many cases, scientific personnel account for a relatively small proportion of the total staff of the department, or the research establishments account for only a small portion of the department's activities. In our view, this makes it difficult for a research establishment to convince its own department – let alone other departments or other research establishments – of the need to deal with issues that it considers important and pressing but that its department, other departments or Treasury Board might consider marginal. The need for change is unlikely to be addressed unless there is sufficient pressure from a majority of departments, or, exceptionally, from one department with a large number of scientific personnel.

11.78 Lack of an interdepartmental forum for dealing with issues related to the management of scientific personnel on a continuing basis. In light of the many issues and concerns identified over the years in the management of scientific

personnel, and the scattering of research establishments across departments, it is apparent that there is a need for an interdepartmental forum to discuss and exchange information on a regular and ongoing basis and to develop proposals to resolve human resource problems.

However, such a forum has not existed on a continuing basis over the last few years.

11.79 We were informed that, although the Steering Committee on the Management of Science and Technology (Science ADMs Committee) dealt in the past with issues related to the management of scientific personnel, recently its agenda has been devoted mainly to other issues. Its Working Group on the Management of S&T Human Resources has not met since November 1992, as it was determined by the Committee that a separate working group on human resource management was not needed. In its only report, the Working Group recommended the creation of an “Annual Federal Science Management Forum”. It said that the purpose of such a forum would be to allow discussion of “science policy and the management and motivation of S&T personnel and organizations on a regular basis, so that the dissemination of best practices can be accelerated.” In May 1994 there was a meeting of the Interdepartmental Advisory Committee for the Promotion of Research Scientists (SE-RES), which had not met for a couple of years. The purpose was to discuss the universal job evaluation plan being developed by the Treasury Board Secretariat, and its application to scientific personnel. We understand that, in the future, the Committee might recommend action on key human resource issues resulting from the current government science and technology review.

11.80 Systemic constraints to the effective management of scientific personnel. A 1989 study by the Organization for Economic Co-operation and Development, *The Changing Role of Government Research Laboratories*, noted that one of the problems confronting the management of scientific personnel in government laboratories is “the age-old problem of the basic incompatibility of the personnel management principles and methods that are required by the nature of research activities and the terms and conditions governing employment in the civil service.”

11.81 The Lortie report in 1990 stated:

...managers in federal S&T organizations have insufficient autonomy in managing their financial and personnel resources, being constrained by departmental management systems and central agency rules...These systems provide little incentive for efficiency or effectiveness, let alone vital goals such as organizational rejuvenation.

11.82 The legislative and administrative framework governing the overall management of people in the public service creates significant barriers to more effective management of people in research establishments. Some of these barriers have been known for more than 30 years, while others are more recent.

11.83 Some of the main constraints mentioned by research establishments and departmental officials include:

- the current Work Force Adjustment Directive, whereby a “reasonable job offer” must be made to scientists whose skills may no longer be required but whose specialization makes it virtually impossible to find alternative employment. This results in a reluctance to declare such people “surplus to requirements”, or in having to keep them on the payroll for long periods of time;

The framework governing the management of people in the public service creates significant barriers to more effective management of people in research establishments.

Changing the prevailing scientific culture to a more management-oriented and business-like culture presents a challenge that has been underestimated.

- the current legislation on wage restraint, which prevents the offer of financial or other incentives for the voluntary early retirement of older scientific personnel to make room for newly graduated scientists and engineers;
- the stipulation that term employment results in an automatic permanent appointment after five years, whereas scientific personnel hired on a temporary basis, for a project that takes five years or longer, may not be needed once the project is completed;
- the job evaluation system, which:
 - creates two classes of scientific personnel — RES and non-RES. Individuals in the RES group are promoted on the merits of their own scientific contribution, while those in the non-RES group are normally promoted through a competition process and only when a more senior position becomes vacant or is created;
 - does not allow for parallel career streams — one managerial and one professional — for non-RES scientists. This may result in people applying for managerial positions even though they may not have a genuine interest in managing, or the necessary skills;
 - does not provide for a clearly identifiable research management cadre in research establishments, with a strong esprit de corps and a community of interests, whose skills could be more systematically developed through training, and developmental assignments;
- the superannuation legislation and pension plan, which are fundamentally designed on the assumption of lifelong employment in the public service. The average age of recruitment for many scientific personnel is higher than for other public servants. Furthermore, with the current emphasis on partnerships with the private sector, greater mobility of researchers is often necessary and desirable to ensure the renewal and maintenance of the knowledge base in research establishments; and
- the Treasury Board guidelines on conference attendance, as sometimes interpreted narrowly by departmental officials, limit the number of employees a department can send to any international conference. This fails to recognize the particular importance of scientific conferences as a means for scientists to keep abreast of the latest research developments and to maintain their expertise.

11.84 Cuts in operating budgets, and a requirement to demonstrate value for the government investment in research and development activities, have made managers more acutely aware of the impact of the constraints we have noted. They know they need to be more flexible and more efficient to compete with other research organizations for client funding and to meet clients' needs in a timely and cost-effective manner.

11.85 **Need for change not always clearly demonstrated.** Research establishment and departmental management teams have been operating in a most demanding context of budget cuts, downsizing, restructuring and reorganizing, which is likely to continue for years to come. In some cases, they have also experienced a high turnover in their more senior corporate managers.

11.86 In this context, and given the issues raised over the last 30 years, we expected to find initiatives by departments or research establishments that clearly demonstrated to central agencies the need for a change in the approach, policies and systems used in the management of scientific personnel. We found that research establishments and departments

have not always demonstrated this need and the consequences of not making changes. For example, while all the research establishments' directors and managers acknowledge the problems resulting from the constraints described above, only in a few cases have they made formal or even informal representations to Treasury Board or the Secretariat that change is needed. We note, however, that when a "business case" has been made, central agencies have sometimes responded positively. For example, one department requested and obtained an exemption from the Treasury Board guidelines on conference attendance for personnel in its research establishments. Further to its request, another department was allowed to make some changes, on a pilot basis, in the promotion criteria for research scientists (SE-RES) for a more effective alignment with its business objectives.

11.87 The prevailing culture. As described earlier in Exhibit 11.2, the values, attitudes, expectations and motivation of scientific personnel give priority to scientific achievements, peer recognition and individual professional contributions. Changing the prevailing scientific culture to a more management-oriented and businesslike culture — which emphasizes working through others to achieve results, often in a competitive environment — presents a challenge that, in our opinion, has been underestimated in terms of the time and effort it will require. Yet significant improvement in the management of research establishments and scientific personnel will require that this challenge be met. This means, for example, helping some scientific personnel, as they move up in the hierarchy, to gradually shift their focus from their professional scientific activities — where they have built a record of success and have been

rewarded — to management, where they do not have the same level of expertise and where there are often no obvious rewards or incentives.

Conclusion

11.88 In our view, although there are important variations in the efforts we observed and in the results achieved, significant improvements are required in many aspects of the management of scientific personnel if research establishments and science-based departments want to be more effective and efficient in the future.

11.89 One critical factor for the successful implementation of the changes that may result from the current science and technology review and other government reform initiatives is *people*. It is through people, those working in research establishments as well as those who manage them and support them, that results will be achieved.

11.90 The action that the government will take to improve the management of scientific personnel — including changes to human resource management policies and systems — will reflect the extent of its real commitment to its goals and priorities for science and technology.

Recommendations

11.91 The following recommendations should be implemented after taking into account the results of the current science and technology review and the government's overall science and technology priorities and objectives.

11.92 Science-based departments and research establishments, in clusters or individually, depending on the need, should develop, in collaboration with central agencies and other stakeholders,

a strategy for the management of their scientific personnel. Such a strategy should take into account:

- the quantitative and qualitative profile of scientific personnel needed compared with scientific personnel available;
- the management capability needed compared with the present capability at various levels, and the changes required;
- the need for improved accountability for managerial responsibilities, including the management of human resources, to ensure that expected results are achieved;
- the changes required in the human resource management policies, systems, and practices, and the related support mechanisms needed; and
- the infrastructure and mechanisms necessary to ensure that required changes in the management of scientific personnel will occur on a timely basis. These should include reporting and accountability mechanisms required for monitoring and ensuring that expected results will be achieved.

11.93 Treasury Board, in its role as the employer and in collaboration with science-based departments, research establishments and other stakeholders, should:

- review the existing public service human resource legislation, policies and systems, in light of the specific and diverse needs of federal research establishments;
- where cost-effective and appropriate, develop a human resource management regime that is tailor-made and decentralized, with appropriate accountability mechanisms. This should include considering a separate employer status for research establishments;

- where appropriate, provide for arrangements, on a departmental or ad hoc basis as needed, including:
 - the creation of a single occupational group for scientific personnel in research establishments;
 - parallel career streams, one for managers and one for non-managers, for different levels as necessary;
 - special recruitment programs;
 - retirement incentives;
 - exclusions from the five-year limit on term employment, or the creation of a special category of employment;
 - alternative pension arrangements; and
 - increased delegation under the guidelines on conference attendance.

11.94 The government should create a forum specifically dedicated to issues related to the management of scientific personnel, within the structure expected to be established by the government to oversee the science and technology portfolio and co-ordinate the activities of science-based departments.

- The purpose of this forum should include sharing best practices, identifying and studying needs and issues, and developing strategies and proposals for solutions.
- In setting up this forum, consideration should be given to including managers of science-based departments and federal research establishments, representatives of central agencies, of scientific personnel, of academic research institutes and of well-performing private sector research and development organizations, and others as appropriate.

- The forum should be supported with appropriate means to ensure that it can carry out its activities effectively.

- The forum should assess and periodically report on progress achieved in providing a suitable framework for the management of scientific personnel in federal research establishments.

Chapter 32

Department of Finance and
Revenue Canada

Income Tax Incentives for
Research and Development

Table of Contents

	Page
Main Points	32-5
Introduction	32-7
Encouraging research and development through the tax system	32-7
Design of the tax incentives	32-7
Take-up of the investment tax credits	32-10
Audit Objectives, Scope and Criteria	32-10
Observations and Recommendations	32-11
Department of Finance	32-11
Department's role and responsibilities	32-11
Costs of the incentives in revenue foregone are open-ended	32-11
Taxpayer-requested adjustments have resulted in large costs	32-14
Monitoring needs to be strengthened	32-16
No evaluation has been done to determine the impacts and effects of the incentives	32-17
Information to Parliament is inadequate	32-18
Revenue Canada	32-19
Department's responsibilities and administrative organization	32-19
New approaches taken to deliver the incentives	32-19
Revenue Canada's review process has changed	32-20
High numbers of claims are putting pressure on Revenue Canada	32-21
Data collection needs to be strengthened	32-21
Conclusion	32-22
Many 1986 observations persist	32-22
Exhibits	
32.1 History of Tax Incentives for Research and Development	32-8
32.2 Examples of Activities That May Qualify for the Scientific Research and Experimental Development Tax Incentives	32-9
32.3 Investment Tax Credits for Canadian-controlled Private Corporations	32-12
32.4 Investment Tax Credits for Other than Canadian-controlled Private Corporations	32-13
32.5 Audit Criteria	32-14
32.6 Taxpayer-requested Adjustments Assessed to 31 March 1994	32-16



Department of Finance and Revenue Canada

Income Tax Incentives for Research and Development

Assistant Auditor General: Shahid Minto
Responsible Auditor: Barry Elkin

Main Points

32.1 As part of its investment in science and technology, the federal government has encouraged research and development in the private sector through various income tax provisions for many years. Canadian companies have taken up the incentives in increasing numbers over the past few years and are now claiming over \$1 billion of investment tax credits annually.

32.2 In common with most tax provisions, the tax incentives for scientific research and experimental development are demand-driven. Every taxpayer who complies with the incentive provisions of the *Income Tax Act* is entitled to the benefits. Low levels of eligible spending by taxpayers result in low costs to the government. High levels of spending by taxpayers result in high costs. Ongoing and thorough monitoring of the incentives is required to manage the costs properly.

32.3 In the past four years, many taxpayers have refiled tax returns for prior years after learning that they had carried out qualified activities but had not claimed the investment tax credits. The 1994 Budget proposed changes restricting expenditures that qualify for the tax credits to those that the taxpayer identifies no later than 18 months after the year in which the expenditures were incurred. This will help the Department of Finance in its monitoring of the costs of the incentives.

32.4 The Department of Finance needs to monitor these tax incentives more thoroughly and systematically, in order to control their costs in foregone revenue and to ensure that the types of activities that qualify under the definitions and rules in the *Income Tax Act* are those the government wants to encourage.

32.5 Data are an integral part of monitoring the incentives for both the Department of Finance and Revenue Canada. Better and more reliable data need to be collected.

32.6 The Department of Finance has plans to evaluate the tax incentives for research and development and has identified important issues to be addressed. We encourage the Department to complete the evaluation studies and to publish the results as quickly as possible.

32.7 The Department of Finance needs to improve its accounting for the tax incentives for research and development, particularly in the areas of projected costs and actual results. It is important for Parliament and the Canadian public to know what these incentives are achieving and what they are costing.

32.8 In addition to its usual work of reviewing claims for compliance with the *Income Tax Act*, Revenue Canada has taken new approaches to delivering the tax incentives for research and development. It has improved its review process so that all claims are now subject to some minimum verification. However, the increasing workload is putting pressure on the Department's ability to administer the incentives in a timely and consistent manner.

Introduction

Encouraging research and development through the tax system

32.9 There are many ways for the government to achieve its economic and social objectives. The most visible is direct government spending on programs, grants and subsidies. The government also pursues its policy objectives through measures (such as tax deductions, credits, exclusions and income tax deferrals) contained in the income tax system. Because those measures represent alternative forms of government assistance, with financial implications similar to those of direct expenditures, they are generally referred to as tax expenditures.

32.10 As part of its investment in science and technology, the federal government has encouraged research and development in the private sector for many years through various income tax provisions. Exhibit 32.1 sets out a brief history of tax incentives for research and development.

32.11 The Department of Finance (Finance), which is responsible for overall policy relating to the tax system, has set out certain objectives for research and development tax incentives at various times over the past 12 years. The most comprehensive statement of objectives is found in the 1983 paper entitled *Research and Development Tax Policies*. In summary, these objectives are:

- to encourage research and development by the private sector in Canada;
- to promote research and development activities that conform to sound business practices;

- to provide tax incentives for research and development that, as much as possible, are of immediate benefit to businesses; and
- to provide tax incentives for research and development that are as simple to understand and comply with and as certain in application as possible.

Design of the tax incentives

32.12 The federal tax incentives currently available for qualifying research and development activities essentially consist of:

- deductions for eligible current and capital expenditures related to scientific research and experimental development undertaken in Canada directly by, or on behalf of, the taxpayer and related to the taxpayer's business. Eligible expenditures each year are added to the taxpayer's pool of expenditures for scientific research and experimental development. Amounts in the pool can be written off at the taxpayer's discretion, up to the total amount in the pool.

- investment tax credits on eligible current and capital expenditures made in Canada. These can be claimed at rates of 20, 30 or 35 percent; they are refundable in some cases. (The 1994 Budget proposes to eliminate the 30 percent rate.) Investment tax credits deducted from taxes payable or refunded must be deducted from the pool of eligible expenditures in the subsequent year.

32.13 Determining qualifying activities. The incentives are directed to scientific research and experimental development (SR&ED), which is defined under regulation 2900 of the Income Tax Regulations to mean a "systematic investigation or search carried out in a field of science or technology by means of experiment or analysis." The regulation goes on to indicate that work undertaken to advance scientific knowledge or to achieve technological advancement for

As part of its investment in science and technology, the federal government has encouraged research and development in the private sector for many years through various income tax provisions.

the purposes of creating new, or improving existing, materials, devices, products or processes will qualify. Certain activities, such as those related to market research or sales promotion, are specifically excluded from the definition.

32.14 Revenue Canada, in consultation with Finance and other federal

departments and agencies and with industry representatives, has developed three criteria to help it and taxpayers determine whether particular activities fall within the definition and therefore qualify for the incentives. Those criteria are:

- scientific or technological advancement — the activity must generate information that advances our

Exhibit 32.1

History of Tax Incentives for Research and Development

Pre-1983	<ul style="list-style-type: none">• Current and capital expenditures on research and development fully deductible in the year incurred• Investment tax credit for both current and capital expenditures with limits on how much could be deducted from taxes otherwise payable• Incremental allowance of 50 percent of current and capital expenditures in excess of the average level over the previous three years
1983	<ul style="list-style-type: none">• Incremental allowance eliminated• Investment tax credit rates increased• Limits on deductibility of investment tax credits eliminated• Partial refundability of unused investment tax credits introduced• Amendments made to investment tax credit carry-over provisions• Scientific research tax credit flow-out mechanism introduced
1985	<ul style="list-style-type: none">• Scientific research tax credit mechanism eliminated• Refundability of unused investment tax credits extended• Term “scientific research” recast as “scientific research and experimental development” (SR&ED)• Rules introduced to limit use of incentives when control of the taxpayer changes• Requirement introduced that investment tax credits be calculated on eligible expenditures net of any related assistance
1986–87	<ul style="list-style-type: none">• Eligible expenditures extended to include payments related to research and development made to federal granting councils• Buildings excluded from eligibility for incentives• Rules requiring that expenses be “related to the business” clarified• Rules implemented constraining the syndication of SR&ED incentives through partnerships• Revised limits on deductibility of investment tax credits reintroduced
1992	<ul style="list-style-type: none">• Optional proxy method introduced for determining SR&ED overhead expenditures for purposes of the investment tax credit• Partial tax credit introduced for equipment that is used primarily, but not all or substantially all, for SR&ED
1993	<ul style="list-style-type: none">• Limits on deductibility of investment tax credits eliminated
1994	<ul style="list-style-type: none">• Elimination of special rules for sole-purpose SR&ED performers proposed• Requirement introduced that, to be eligible for the incentives, SR&ED expenditures must be identified no later than 18 months following the year in which the expenditures were made

understanding of scientific relations or technologies;

- scientific or technological uncertainty — whether a given result or objective can be achieved and how to achieve it are not yet known or able to be determined on the basis of generally available scientific or technological knowledge or experience; and
- scientific and technical content — the activity must incorporate a systematic investigation and be carried out by qualified personnel.

32.15 Qualifying activities do not have to be carried out in a laboratory by scientists. Many occur in manufacturing plants, on the shop floor or in an office. For example, incremental improvements to existing products, improvements to the way products are manufactured and new

software programs may all qualify if they meet the criteria set out above. Activities such as data collection and testing that are required to carry out qualifying activities are also eligible for the tax incentives. Exhibit 32.2 gives an indication of the range of activities that may qualify for the tax incentives if the requirements of the Income Tax Regulations are met.

32.16 Determining eligible costs.

Generally, expenses that are directly attributable to qualifying activities (for example, salaries, benefits, materials and appropriate overheads) are eligible for the tax incentives. In December 1992, the government proposed a proxy method for dealing with overhead expenses related to scientific research and experimental development activities, to reduce the burden on taxpayers and Revenue Canada

Qualifying activities do not have to be carried out in a laboratory by scientists.

Exhibit 32.2

Examples of Activities That May Qualify for the Scientific Research and Experimental Development Tax Incentives

Note: These activities will qualify for the tax incentives only if they incorporate a systematic investigation by means of experimentation or analysis and meet all the other requirements of the Income Tax Regulations.

- Developing a new line of fibreglass windows and improving window hardware and locking mechanisms.
- Developing processes for the recycling of a wide range of solid waste materials, such as wood, plastics, glass, tires, construction waste and cardboard.
- Designing and developing a machine that assembles hanging file folders from paperboard blanks and runners.
- Developing an automatic guidance system for underground mining vehicles.
- Developing software relating to interfaces for weigh scales, bar coding and digitizers.
- Developing new software for an on-line, fully functional, detailed general ledger system.
- Developing an on-line system to validate credit information.
- Developing a comprehensive payroll system for personal-type computers.
- Designing and developing computer-controlled multimedia products using graphics, video, sound and text, and three dimensional images.
- Developing an integrated material handling/optics/computer system to inspect fruit after mechanical halving and pitting.
- Developing improved tomato cultivars and hybrids that have superior qualities for production and processing.
- Developing a single component polyurethane foam system that is ozone-friendly.
- Designing, developing and testing a landing gear control unit.
- Developing unreinforced and fibre-reinforced polymer modified cementitious material systems for products that provide coatings for rust protection and waterproofing of cement surfaces.
- Developing a new synthetic rubber polymer for industrial roll covering products.
- Researching and developing human diagnostic and therapeutic health care products.
- Developing new drugs based on their effects on leukotriene-mediated diseases such as asthma.
- Developing medical diagnostic instruments for heart valve problems.
- Developing devices to rapidly detect cardiovascular risk.
- Developing more environmentally acceptable muds for drilling to replace oil-based muds without compromising drilling performance.
- Developing a process to bleach kraft pulp to a specific brightness without using chlorine.

for determining eligible overhead expenses. This proposal was passed into law on 12 May 1994. Revenue Canada allowed taxpayers to use the proxy method for taxation years ending after 2 December 1992 if they elected to do so.

32.17 Safeguarding federal revenues. One of the key controls built into the design of these incentives is that the company must spend the funds first before receiving any tax incentives. This also helps guard against government funding of research and development that the marketplace would not support otherwise.

32.18 Provincial incentives. Several of the provinces have additional tax incentives for research and development. In most cases these incentives are deducted from the base on which the federal incentives are calculated.

Take-up of the investment tax credits

32.19 Exhibits 32.3 and 32.4 provide information on the level of take-up of the investment tax credits for scientific research and experimental development. Taxpayers who carry out qualifying activities and incur eligible costs can claim investment tax credits. These investment tax credits can be deducted from income taxes otherwise payable. Canadian-controlled private corporations can also receive cash refunds of investment tax credits claimed that cannot be deducted from taxes otherwise payable, if they meet certain criteria. In all other situations, investment tax credits claimed that cannot be deducted can be carried forward 10 years or back three years to be deducted from the taxes payable in those years.

32.20 As can be seen from Exhibit 32.3, Canadian-controlled private corporations (CCPCs) steadily increased the investment tax credits they claimed

between 1988 and 1992. As well, the number of CCPCs claiming credits rose from just over 4,000 in 1988 to 5,500 in 1992. The exhibit reveals that the dollar amount of investment tax credits deducted by these corporations has remained relatively stable over the period. The exhibit also shows that the amount refunded to these corporations has increased steadily, reaching \$250 million in 1992. In other words, many of these corporations were not able to deduct any or all of the credits they claimed in a particular year, often because they were not in a taxable position. However, they were eligible for a cash refund of those credits.

32.21 Exhibit 32.4 shows the situation for corporations other than CCPCs, such as public companies. The number of those corporations claiming investment tax credits remained quite stable over the five years, at about 1,000. Again, the amounts claimed increased between 1988 and 1992, exceeding \$750 million in 1992. However, the amounts deducted from income taxes otherwise payable have remained relatively stable. For those corporations, investment tax credits claimed but not deducted can be carried forward or backward. Revenue Canada's data base shows that, at the end of 1992, corporations claiming scientific research and experimental development tax credits were carrying forward over \$2.5 billion of these and other investment tax credits. Some portion of these credits will likely be deducted from income taxes in future years.

Audit Objectives, Scope and Criteria

32.22 The purpose of this audit was to examine, assess and report on how well the tax incentives for scientific research and experimental development are being

delivered, monitored and evaluated. We were particularly interested in learning how the Department of Finance assesses, analyzes and reports on the results being achieved with the incentives.

32.23 We focussed on the investment tax credit portion of the incentives. We conducted our audit work in the Department of Finance and in Revenue Canada's head office and five district offices.

32.24 The audit criteria we used are set out in Exhibit 32.5.

Observations and Recommendations

Department of Finance

Department's role and responsibilities

32.25 The Department's Tax Policy Branch analyzes and makes recommendations on tax policy and legislation. With respect to the tax incentives for research and development, the Branch is responsible for developing, monitoring and evaluating incentives that will meet government objectives.

Costs of the incentives in revenue foregone are open-ended

32.26 In common with most tax provisions, the tax incentives for scientific research and experimental development are demand-driven. Every taxpayer who complies with the incentive provisions in the *Income Tax Act* is entitled to the benefits. But the total amount of tax revenue foregone (the "cost" of the incentives) depends on how taxpayers respond. Low levels of eligible spending by taxpayers result in low costs. High levels of spending by taxpayers result in high costs. The tax credits cannot be withheld by the government simply

because the amount of tax revenue foregone has exceeded the amount originally forecast.

32.27 Think of the investment tax credit for scientific research and experimental development in terms of a direct spending program. Suppose the government agrees to pay all those who carry out qualified research and development 20 percent of their costs. There are no spending limits — all who qualify, no matter how much they spend, get a cheque from the government for 20 percent of their eligible costs. The investment tax credit for scientific research and experimental development works in a similar way for all taxpayers who can deduct the credit from taxes payable and for those who receive refunds of their credits.

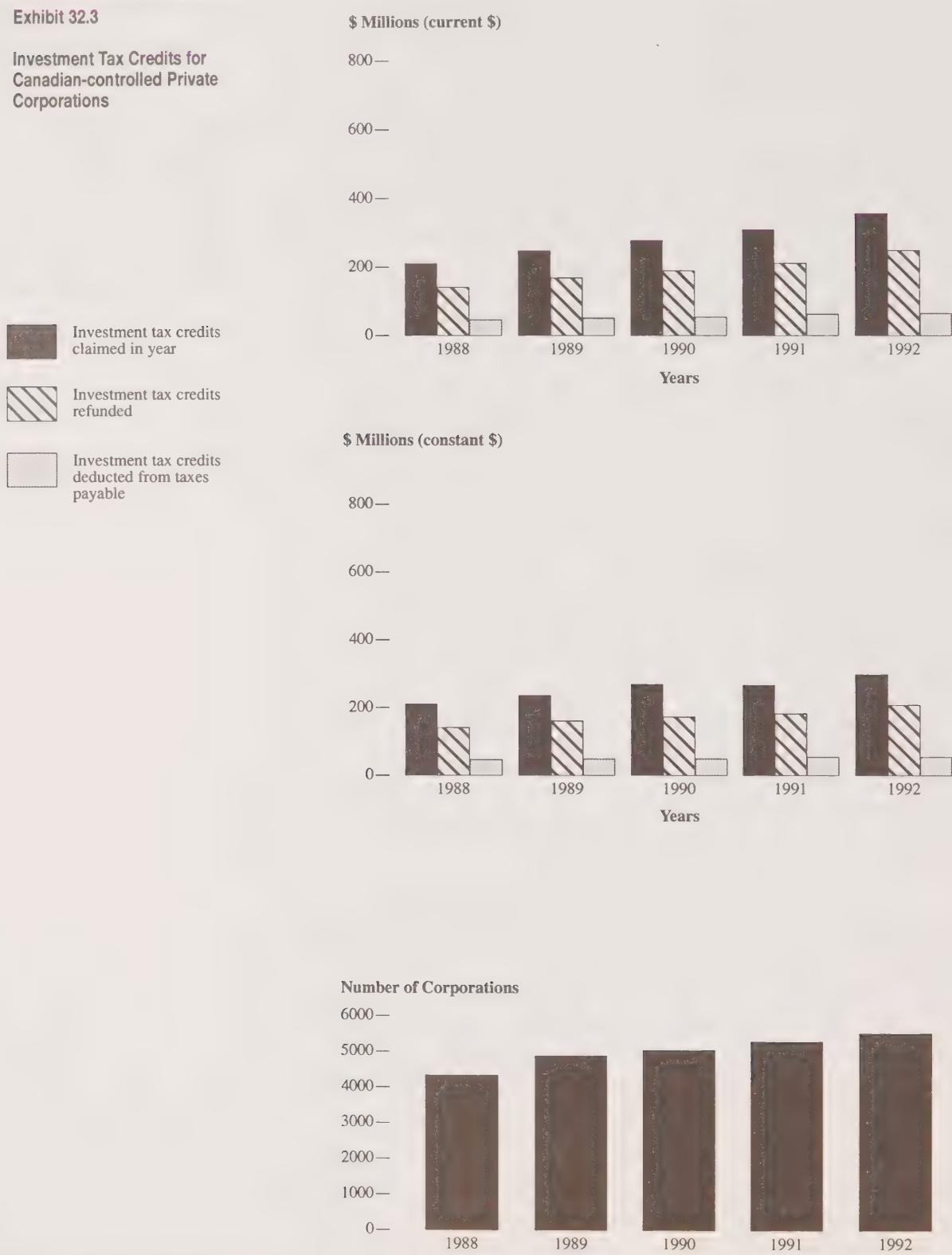
32.28 For other taxpayers, there are restrictions on the amount of investment tax credits that can be used in a particular year and, therefore, limitations on the cost of the incentives. For example, until 1993 there were limitations on the amount of investment tax credits that could be deducted from taxes otherwise payable in a particular year. Any amount not deducted could be carried forward or backward.

32.29 As noted in Exhibits 32.3 and 32.4, there has been a steady growth in the dollar amount of investment tax credits for scientific research and experimental development claimed over the past five years. In 1992, companies claimed over \$1 billion in investment tax credits. Of this amount, approximately \$470 million was deducted from income taxes otherwise payable and about \$250 million was refunded to taxpayers. The balance was carried forward to future years or back to prior years. As of 30 June 1994, Revenue Canada had over \$1.2 billion of investment tax credits in claims where the

Every taxpayer who complies with the incentive provisions in the *Income Tax Act* is entitled to the benefits.

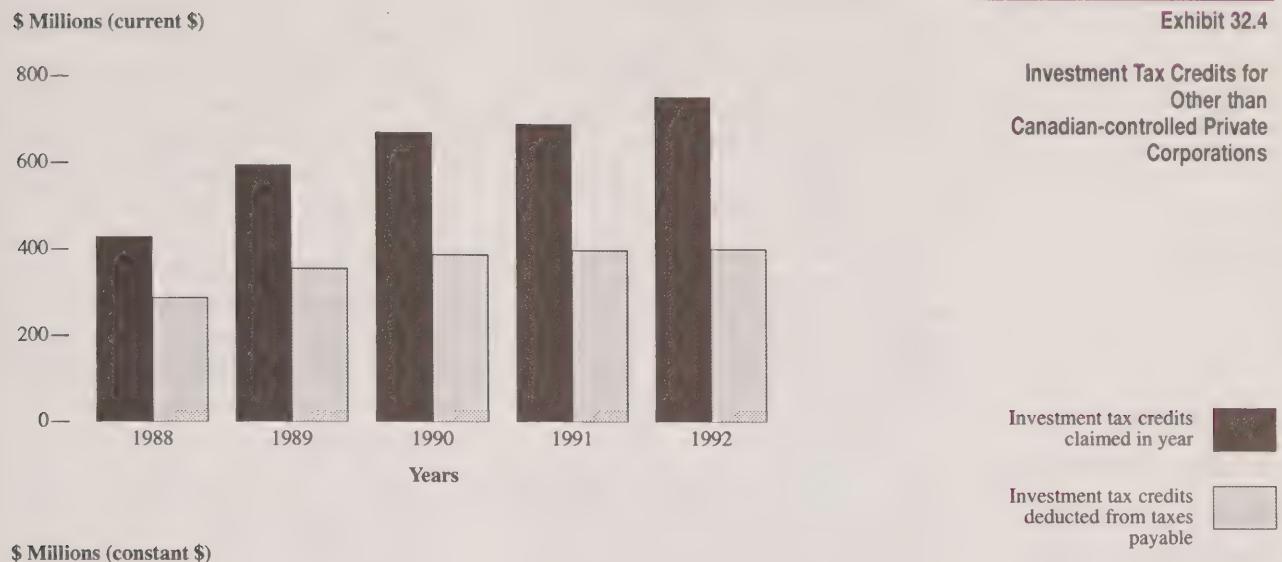
Department of Finance and Revenue Canada –
Income Tax Incentives for Research and Development

Exhibit 32.3

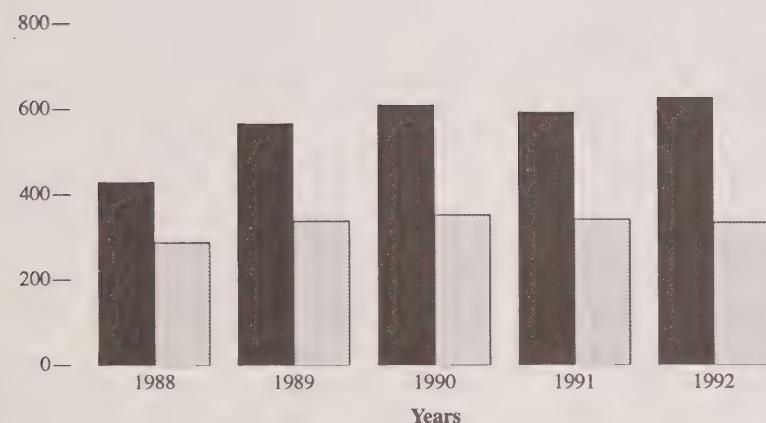


Source: Revenue Canada Data Base

Exhibit 32.4



\$ Millions (constant \$)



Number of Corporations



Source: Revenue Canada Data Base

In recent years, many taxpayers have refiled their tax returns for prior years to claim investment tax credits for scientific research and experimental development.

review had not been completed. As long as the taxpayers making these claims do so within a specified time period and qualify for the credits, they will receive them. We also note that, of the \$4.4 billion in investment tax credits claimed during the 1988 to 1992 period, \$1 billion was claimed by less than one percent of the companies making claims. We note this not to suggest that there is a problem with the claims, but to illustrate that there are no explicit limits on the amount that one company can claim.

32.30 In addition, the design of the tax system means that the government does not know exactly how much will be claimed until it receives a tax return — up to 30 months after the eligible expenditures are actually incurred. To suggest that companies provide information to the government ahead of time would be unrealistic. It would be contrary to one of the advantages of using the tax system to deliver programs — administrative ease and efficiency. However, as pointed out above, all taxpayers who make claims within a specified time period and who qualify for the credits will receive them.

32.31 The demand-driven nature of the incentives and the time lag until the government knows how much has been

claimed are characteristics that are common to most tax provisions. However, they could result in high amounts of revenue foregone. They could also make it difficult for Finance to forecast, for budget purposes, how much revenue will be foregone in the future.

32.32 In our view, ongoing and thorough monitoring of the incentives is required to properly manage them. As discussed in paragraphs 32.41 to 32.45, we believe Finance needs to strengthen its monitoring activities.

Taxpayer-requested adjustments have resulted in large costs

32.33 Many taxpayers learned about the incentives for scientific research and experimental development only in recent years and realized that they had been carrying out qualified activities in prior years but had not filed a claim. They have refiled their tax returns, for those prior years that are not statute-barred, to claim the investment tax credits for scientific research and experimental development. These refilings are referred to as taxpayer-requested adjustments. Furthermore, some of the activities were carried out in taxation years that are now statute-barred. In those cases, taxpayers have used the carry-forward provisions for the investment tax credits to carry the

Exhibit 32.5

Audit Criteria

- The objectives of the incentives should be clearly stated.
- Appropriate terms and conditions for receiving the incentives should be established consistent with the legislative mandate.
- Information on the incentives, and particularly information on the rules governing eligibility, guidelines for applicants and the preparation of returns, should be made available to potential recipients.
- Procedures should be established for ensuring that claims approved meet the established terms and conditions for the incentives. These procedures should be documented.
- The management information system should provide reliable, relevant and timely information to the appropriate managers on operations and claims. Managers should monitor the incentives.
- Effectiveness of the incentives should be measured and reported using state-of-the-art and cost-justified procedures. The results of effectiveness measurement should be considered in making decisions about the design and operation of the incentives.

credits forward to a year that is not statute-barred. For example, a company learns in 1994 that it had been carrying out qualified activities in 1988 but had made no claim for investment tax credits in that year; that year is now statute-barred. Under the *Income Tax Act*, the company can calculate the investment tax credits that it would have claimed and then carry them forward to be deducted against taxes paid in a year that is not statute-barred, such as 1992.

32.34 Consistent with regular assessing practices, taxpayers are also entitled to receive interest on approved claims. For example, a taxpayer files a claim in 1994 for scientific research and experimental development expenditures incurred in 1990 and requests that the related investment tax credit be deducted from the income taxes paid in 1990. This will result in a refund to the taxpayer equal to the investment tax credit plus interest. In accordance with the *Income Tax Act*, interest is calculated from 1990 rather than from the date the claim was filed in 1994. This applies to all taxpayers except those who are eligible for cash refunds of investment tax credits. They receive interest only from the date the claim was made.

32.35 Several companies in one particular sector recently filed taxpayer-requested adjustments for scientific research and experimental development expenditures made in years back to 1986. These claims totalled over \$300 million in investment tax credits. The research and development claimed was in the field of computer software. Our discussions with technical experts at Revenue Canada who had been assigned to review the claims indicated that most of the activities claimed are, or may be, qualified scientific research and

experimental development under the Income Tax Regulations.

32.36 It is important to note that under the rules that existed prior to the 1994 Budget, taxpayers who carried out qualifying scientific research and experimental development activities were entitled to the incentives.

32.37 The February 1994 Budget proposed changes restricting expenditures that qualify for the tax credits to those that the taxpayer identifies no later than 18 months after the year in which the expenditures were incurred. The Budget states: “The government intends to focus the scientific research and experimental development tax incentive on encouraging new research and development rather than on providing an incentive to reopen the calculation of tax credits for expenditures made in prior years.” The change will also enable Finance to monitor the costs of the incentives more closely. A transitional provision was included for expenditures incurred in taxation years ending before the Budget date. Taxpayers were given up to 90 days after royal assent to identify the expenditures. This provision received royal assent on 15 June 1994 and so the final date for filing claims relating to previous taxation years was 13 September 1994.

32.38 Exhibit 32.6 shows the taxpayer-requested adjustments assessed up to 31 March 1994. In addition, at that date, Revenue Canada had approximately 2,100 more claims waiting to be reviewed and audited, representing over \$425 million in potential investment tax credits.

32.39 Subsequently, Revenue Canada received a large number of additional claims up to the 13 September 1994 filing deadline referred to in paragraph 32.37. At the time this report was written, Revenue Canada had not finished entering

When the government makes changes to a tax provision it cannot necessarily make them effective immediately; it can therefore incur transitional costs in foregone revenue.

all of those claims in its data base. We note, however, that the Department had recorded over 9,000 claims. The Department informed us that the information in its data base on the dollar amount of investment tax credits relating to those claims was unreliable, because it had to be edited and it represented only the amounts claimed by taxpayers. The claims have to be reviewed and audited and this could result in adjustments to the amounts claimed. However, it appears that the dollar amount of investment tax credits relating to the claims is likely to be significant.

32.40 When the government makes changes to a tax provision it cannot necessarily make them effective immediately; it can therefore incur transitional costs in foregone revenue. Taxpayer-requested adjustments for investment tax credits related to scientific research and experimental development have likely resulted in significant transitional costs. In our view, better monitoring of the situation by Finance and an earlier determination that changes were

needed could have resulted in fewer claims and lower transitional costs.

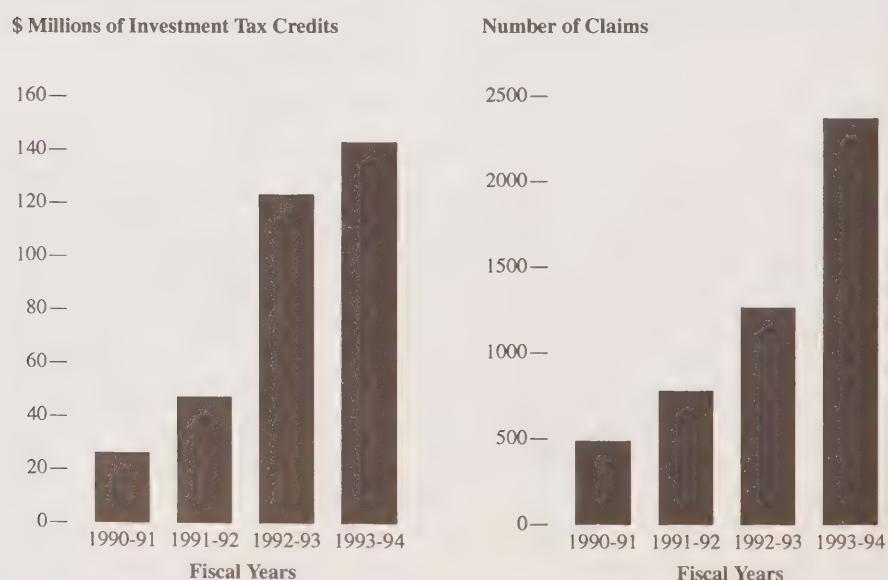
Monitoring needs to be strengthened

32.41 The division of responsibilities between Finance and Revenue Canada has caused some difficulties in monitoring the tax incentives for research and development. Revenue Canada has the main responsibility for administering the incentives and has the most direct contact with the users. However, Revenue Canada is primarily involved with ensuring compliance with the *Income Tax Act*, and approves all claims that comply with the definitions and rules set out in the Act. It is the responsibility of Finance to ensure that the definitions and rules specify qualifying activities and eligible costs that will achieve the government's objectives. But Finance is not involved in the day-to-day administration of the incentives and depends on Revenue Canada to supply it with information to assist in its monitoring activities.

32.42 Ongoing and thorough monitoring of the tax incentives for research and development is needed to

Exhibit 32.6

Taxpayer-requested
Adjustments Assessed to
31 March 1994



Source: Revenue Canada

control their costs in foregone revenue and to ensure that the types of activities that qualify under the definitions and rules are those that the government intends to encourage.

32.43 We found that, until recently, Finance has not been monitoring these incentives on a systematic basis, partly because of the data collection problems outlined in paragraphs 32.74 to 32.78. With respect to costs, Finance has been monitoring the investment tax credits originally claimed by taxpayers. It has also been monitoring, to a lesser extent, the credits assessed by Revenue Canada and whether the assessed credits were deducted from taxes, refunded or carried forward. Finance has not made projections of expected costs for comparison with actual costs. The information Finance has on types of activities is mostly anecdotal, based mainly on discussions with Revenue Canada and the public consultations that were conducted during 1992.

32.44 The information needed to monitor the incentives adequately would include data on such things as eligible expenditures incurred, by type of activity qualifying under the definitions and rules and by industry sector; amount of investment tax credits claimed, deducted from tax, refunded, carried back or forward; the number of taxpayers in each of these categories; the type, number and value of audit and appeal adjustments; and the costs to administer the incentives. To supplement these data, particularly on the types of activities that qualify, we believe it would be beneficial for officials from Finance to interact more directly with Revenue Canada's scientists and auditors.

32.45 The Department of Finance should monitor the tax incentives for scientific research and experimental

development more thoroughly and systematically and should develop projections of revenue foregone for comparison with the actual amounts.

Department's Response: Investment tax credits for scientific research and experimental development (SR&ED) are provided in recognition of the fact that the benefits of SR&ED accrue beyond the SR&ED performer to other participants in the economy. These credits are intended to encourage firms to perform SR&ED in Canada and are important given the key role of SR&ED in the emerging new economy. The current system of tax credits for SR&ED provides significant income tax relief.

The importance of SR&ED for the Canadian economy and the cost of SR&ED tax credits necessitate that timely, accurate and useful information be available to monitor and evaluate the performance of federal income tax incentives for SR&ED. In conjunction with Revenue Canada, we have taken steps to ensure that the information available on SR&ED tax incentives meets these requirements. We will also continue to review our ability to monitor these incentives in an effective manner, and will move expeditiously to complete our evaluation studies of income tax assistance to SR&ED and publish the results.

No evaluation has been done to determine the impacts and effects of the incentives

32.46 Tax expenditures, like direct expenditures, need to be evaluated periodically to determine their impacts and effects, to assess whether their objectives are being met economically and efficiently, and to determine whether there is a continuing need for them. At the time of our audit, no formal evaluation of the tax incentives for research and development had been done.

We found that, until recently, Finance has not been monitoring these incentives on a systematic basis.

The Department of Finance and Revenue Canada have plans to evaluate jointly the research and development tax incentives.

32.47 The Department of Finance and Revenue Canada have plans to evaluate jointly the research and development tax incentives. The issues that will be evaluated have been identified. An evaluation plan is being developed for presentation to and approval by the Department of Finance's Tax Evaluation Advisory Committee.

32.48 We have reviewed the potential evaluation issues identified by Finance. In our view, they address important issues related to the tax incentives.

32.49 We are encouraged by the fact that Finance is now moving to evaluate the tax incentives for scientific research and experimental development but we are concerned that it has taken over 10 years to start such an evaluation. These are expensive incentives and, especially in a time of fiscal restraint, it is important to know whether they are achieving their objectives and whether they are still needed.

It is important that Parliament hold the government to account for this spending through the tax system.

Information to Parliament is inadequate

32.50 In many ways, tax expenditures are not different from direct expenditures. They represent a transfer of funds from all taxpayers to those taxpayers who are performing a desired activity, in this case scientific research and experimental development. Every dollar of investment tax credits allowed to one company must be paid for by all other taxpayers. Seen in this light, it is important that Parliament hold the government to account for this spending through the tax system.

32.51 In order to do this, Parliament needs information: it needs to know what the tax incentives for research and development are expected to accomplish, how much they are expected to cost, what they actually have accomplished and what they actually cost. It is important that this

information be available at the same time as the Estimates and Public Accounts are being considered so Parliament can get a full picture of planned and actual government spending in support of research and development.

32.52 Finance's Part III for 1994–95 is silent on its responsibilities for the operational and financial aspects and the results of the tax incentives for research and development. We believe that Finance needs to include in an accountability document, such as its Part III or the tax expenditure report, an overview of the tax incentives for research and development, and references to where more detailed information can be found. At a minimum, this information would include a description of the incentives, their objectives, their expected costs and their actual costs. As well, information about actual results would be desirable.

32.53 Information provided.
Parliament received a paper for consultation in 1983 on research and development tax policies. That paper reviewed the incentives for research and development that existed at the time and proposed changes to those incentives. The paper contained some information on expected results and expected costs. Since then there have been references to the research and development tax incentives in budget documents when changes were being proposed. The information provided generally described the changes being made and the rationale for them.

32.54 The tax expenditure report published in 1993 (the previous one containing corporate data was published in 1985) gave amounts of revenue foregone for the years 1989 and 1990. However, it did not provide any comparison of actual revenue foregone to projections, or any

information on what had been accomplished.

32.55 In our view, this information is not sufficient to allow Parliament to exercise its oversight role or to hold the government accountable for its spending through the tax system on the tax incentives for research and development. This conclusion is echoed in Chapter 9, which says that current reports do not provide parliamentarians with the information they need to assess whether the government's investment in science and technology reflects Canadians' needs and opportunities.

32.56 The Department of Finance should improve its accounting for the tax incentives for scientific research and experimental development by providing consolidated information on the projected costs and actual costs and the results, in any regularly published accountability document such as Part III of the Estimates or the tax expenditure report.

Department's response: As indicated in our response to the recommendation in paragraph 32.45, we will continue to review our ability to monitor these incentives in an effective manner. At this time, focussing efforts on improved monitoring is a more effective use of the Department's limited resources than projecting estimates and comparing them to actual tax expenditures.

Revenue Canada

Department's responsibilities and administrative organization

32.57 Revenue Canada's mandate is to administer the *Income Tax Act* and other Acts. With respect to the tax incentives for research and development, the Department is responsible for ensuring that all claims by taxpayers for incentives

comply with the rules set out in the Act and in the *Income Tax Regulations*. To help accomplish this, Revenue Canada provides information and assistance to taxpayers in a number of different ways. The Department also promotes the incentives.

32.58 Within Revenue Canada, the Verification, Enforcement and Compliance Research Branch has overall responsibility for administering the incentives. A small group at head office develops guidelines and monitors the work done in the district offices across the country.

New approaches taken to deliver the incentives

32.59 One of the first steps Revenue Canada took in delivering these incentives was to recognize that its auditors were not trained to make decisions on whether a particular activity was scientific research or experimental development as defined in the *Income Tax Regulations*. It therefore hired science advisors with industrial research and development experience who were able to make such judgments. Currently, the Department has over 60 such science advisors on staff. In addition, it hires experts on a contract basis, as necessary, to supplement its in-house expertise. Claims are reviewed by a science advisor for the technical aspects and by an auditor for the related costs. The activities undertaken by the taxpayer must first qualify under the *Income Tax Regulations* before the costs can be considered.

32.60 Another step was to raise public awareness about the incentives. Public seminars were organized to inform taxpayers about the incentives and how to apply for them. Both science advisors and auditors participated in these seminars. Departmental statistics indicate that during the period 1 April 1993 to

Claims are reviewed by a science advisor for the technical aspects and by an auditor for the related costs.

Public seminars were organized to inform taxpayers about the incentives and how to apply for them.

It is important that all claims be subjected to some minimum verification to determine whether the activities undertaken qualify and whether the costs of those activities are eligible.

31 March 1994, there were 205 seminars held with over 5,500 participants.

32.61 A third step was to publish information about the program. There is an Interpretation Bulletin, an Information Circular, a guide to the claim form and several promotional brochures. In addition to the Information Circular, which sets out in general terms what qualifies as scientific research and experimental development under the *Income Tax Act*, six industry papers have been published. These papers give practical indicators of which activities in a particular industry would and would not qualify.

32.62 The Department has also consulted with the user community on an ongoing basis. It used participants from industry to help write the papers referred to above, as well as other interpretive documents. Also, a committee of industrial users advises the Deputy Minister on issues related to the Department's administration of the incentives.

32.63 These steps have meant a cultural shift for many employees of the Department, particularly its auditors. In the past, auditors have tended to focus on issues of non-compliance with the *Income Tax Act*, which frequently lead to increased tax revenues. With the tax incentives for research and development, science advisors and auditors are encouraged, within the confines of the *Income Tax Act*, to inform potential claimants about the incentives and to ensure that all claimants receive their full entitlements.

Revenue Canada's review process has changed

32.64 The Department's process for reviewing claims for investment tax

credits related to scientific research and experimental development has changed several times in recent years. In our view, these changes represent improvements. Ordinarily, the Department assesses returns when they are filed based on the information provided in the return, and relies on subsequent audits to verify that information.

32.65 With the investment tax credits for scientific research and experimental development, that process is modified. Until 1993, some claims, mainly those requesting a refund, were audited before they were assessed. Others, however, were assessed in the regular way and often had to wait several years to be audited. Some were never audited.

32.66 Now all claims are subjected to a desk review by a science advisor and an auditor when they are filed. This review is designed to determine whether the activities being claimed meet basic eligibility requirements and whether the costs are reasonable. Revenue Canada is committed to reporting the results of the review to the taxpayer within 120 days of receiving a complete claim. As a result of the desk review, the claim either is accepted as filed or is audited. If the claim is accepted, the taxpayer will receive a letter confirming this and explaining that no audit of the claim will be done in the future, in normal circumstances. If an audit is required, the Department is committed to conducting it within 120 days for claims requesting a refund or within one year for other claims, unless the taxpayer requests otherwise. This new process is designed to give taxpayers certitude as early as possible about the status of their claims.

32.67 We believe this change is a positive step and has a further benefit. In our view, a dollar of tax revenue intentionally foregone is much the same as

a dollar spent. Therefore, it is important that all claims be subjected to some minimum verification to determine whether the activities undertaken qualify and whether the costs of those activities are eligible. Claims that do not pass this test can then be audited. We are encouraged that Revenue Canada is now subjecting all claims to some minimum verification.

High numbers of claims are putting pressure on Revenue Canada

32.68 As indicated in paragraphs 32.33 to 32.40, there has been a large increase in the number of taxpayer-requested adjustments received by Revenue Canada over the past few years. As well, the Department's statistics show that the number of annual claims is increasing. Furthermore, as discussed above, the Department is now reviewing all claims when they are filed and is committed to notifying the taxpayer about the results of the review within 120 days of receiving a complete claim.

32.69 This increased workload is putting pressure on Revenue Canada's ability to administer the incentives in a timely and consistent manner, one of its main objectives. Resources allocated to administering the incentives were increased in 1993–94 but are expected to remain the same for 1994–95.

32.70 Revenue Canada has taken steps to manage this situation. All taxpayer-requested adjustments are exempt from the 120-day guideline, although employees are still expected to process them as expeditiously as possible. As well, the changes in the *Income Tax Act* relating to taxpayer-requested adjustments mean that the intake of such claims should be significantly reduced after 13 September 1994.

32.71 The Department found in the past that it often spent more time reviewing the first claim that a taxpayer submitted than it spent on subsequent claims. It now provides a service to first-time claimants to help them with their first claim, with a view to reducing the time it spends reviewing them.

32.72 The decentralized way in which the incentives are administered means that the Department needs to be concerned about consistency in interpreting and applying the rules. The Department has strengthened its review mechanism to help deal with this concern.

32.73 Given the increasing workload that Revenue Canada is facing with these tax incentives, coupled with the increasing complexity of some of the claims, it will have to remain vigilant to ensure that the incentives are administered in a timely and consistent manner.

Data collection needs to be strengthened

32.74 Revenue Canada has been collecting some, but not all, of the information needed to monitor the incentives. The information is needed by Revenue Canada to monitor its administration of the incentives, and by Finance to monitor the costs and whether the types of activities that qualify under the definitions and rules are those that the government intends to encourage.

32.75 We expected to find information on how much was being claimed, deducted, refunded, carried back or forward; the number of taxpayers in each of these categories; the amount of eligible expenditures incurred, by type of activity qualifying under the definitions and rules and by industry sector; the level of audit coverage; and the type, number and value of audit and appeal adjustments.

32.76 We found information on how much was being claimed, the number of

Revenue Canada will have to remain vigilant to ensure that the incentives are administered in a timely and consistent manner.

**Revenue Canada
discovered in 1993
that one of its key data
bases for the
information it was
collecting was not
completely reliable.**

taxpayers involved, and the number and value of audit adjustments. In our view, this is not sufficient to allow Revenue Canada to monitor its administration of the incentives effectively or to allow it to make strategic decisions about where to focus future efforts. Nor is it sufficient to allow Finance to carry out its monitoring activities.

32.77 Moreover, Revenue Canada discovered in 1993 that one of its key data bases for the information it was collecting was not completely reliable. The Department has an action plan to improve the quality and reliability of the data base and is working on it.

32.78 Revenue Canada, in consultation with the Department of Finance, should determine and collect the information needed to monitor fully and to report on the tax incentives for scientific research and experimental development.

Department's response: Consistent with the Department's action plan, the quality and reliability of the data base will continue to improve.

The Department introduced a verification process for the SR&ED form (T661) on 1 October 1993 and is completing the enhancement of existing information management systems to capture accurate and detailed information on SR&ED claims that will further assist in monitoring and evaluating the SR&ED program.

Discussions with the Department of Finance have been held to ensure that, in part, the needs of both departments are met with regard to the quantity and quality of information necessary for the

monitoring and evaluation of the SR&ED program. As a result, an interdepartmental committee has been formed that will meet on a regular basis to address these issues.

Conclusion

Many 1986 observations persist

32.79 In our 1986 chapter on income tax expenditures, we concluded that the Department of Finance was not adequately managing tax-delivered programs. We called for improved monitoring, evaluation and reporting of tax expenditures. Our present observations and conclusions on the tax incentives for scientific research and experimental development are much the same.

32.80 While some progress has been made on monitoring these tax incentives, much remains to be done in order for the Department of Finance and Revenue Canada to control them. Similarly, the planned evaluation (which in our view is overdue) should point out the impacts and effects of the incentives and determine whether they are still needed. Finally, while recognizing the progress that has been made, we stress the need for better reporting on these tax incentives. It is difficult, if not impossible, for Parliament to hold the government accountable for this spending through the tax system when it does not have proper information. In a time of fiscal restraint, it is imperative that the Department of Finance ensure that Canadian taxpayers are getting value for money from the tax incentives for scientific research and experimental development.

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents

Volume Chapter

1	Introduction
1	Matters of Special Importance and Interest
2	Follow-up of Recommendations in Previous Reports
3	Other Audit Observations
4	Background on the Audit Process
	Appendices
A.	Auditor General Act
B.	Financial Administration Act – Extracts from Part X
C.	Reports of the Standing Committee on Public Accounts to the House of Commons
D.	Report on the Audit of the President of the Treasury Board's Report to Parliament: Tablings in Parliament for Parent Crown Corporations: Annual Reports and Summaries of Corporate Plans and Budgets
E.	Taking Stock of Special Operating Agencies – A Summary of Conclusions of Joint Public and Private Sector Steering Committee
	Studies
2	5 An Innovative Society and the Role of Government
3	6 Study of Key Federal Social Programs
4	7 Information for Parliament: Departmental Reporting on Sectoral Activities and Follow-up of 1992 Chapter on Departmental Reporting
5	8 Information Technology – Reaping the Benefits and Managing the Risks
	Audits
6	9 Science and Technology – Overall Management of Federal Science and Technology Activities
10	Science and Technology – Management of Departmental Science and Technology Activities
11	Science and Technology – The Management of Scientific Personnel in Federal Research Establishments
32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents (cont'd)

Volume	Chapter	Report Title
7	12	Aspects of Federal Real Property Management
8	13	Federal Management of the Food Safety System
9	14	Agriculture and Agri-Food Canada – Farm Income Protection
10	15	Atomic Energy Control Board – Canada's Nuclear Regulator
11	16	Correctional Services Canada – Custody of Inmates
	17	National Parole Board
	18	Correctional Services Canada – Supervision of Released Offenders
12	19	Environment Canada – Environmental Partners Fund
	20	Environment Canada – Ice Services
13	21	Foreign Affairs and International Trade Canada – Technical Assistance Contributions to Central and Eastern Europe and the Former Soviet Union
	22	Foreign Affairs and International Trade Canada – Financial Management and Control
14	23	Indian and Northern Affairs Canada – Social Assistance
15	24	National Defence – Defence Management Systems
	25	National Defence – Information Technology
	26	National Defence – Infrastructure Reductions
	27	National Defence – Infrastructure Management
16	28	Revenue Canada – Customs Assessment Activities
	29	Revenue Canada – Collecting Income Tax Debts
	30	Revenue Canada – Goods and Services Tax: Audit and Special Investigations
	31	Revenue Canada – Ensuring Fairness of the Income Tax System: Detection of Non-Filers and Special Investigations
	32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development
	33	Department of Finance and Revenue Canada – Tax Assistance for Retirement Savings
17	34	Public Works and Government Services Canada – Management and Operation of Crown-owned Office Buildings

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1994 Report of the Auditor General of Canada to the House of Commons

Volume 7 – Table of Contents

Chapter		Page
12	Aspects of Federal Real Property Management	12-3

The audit work reported in this volume was conducted in accordance with the legislative mandate, policies and practices of the Office of the Auditor General. These policies and practices embrace the standards recommended by the Public Sector Accounting and Auditing Board (PSAAB) of the Canadian Institute of Chartered Accountants.

Chapter 12

Aspects of Federal Real
Property Management

Table of Contents

	Page
Main Points	12-5
Introduction	12-7
Background	12-7
Audit Scope and Criteria	12-11
Departmental Responses	12-13
Observations and Recommendations	12-14
Conflicting Government Objectives Often Make Sound Asset Management Principles Difficult to Follow	12-14
Key Management Tools Are Not Yet in Place	12-17
Accounting policies for real property need to be reassessed	12-17
Management information systems are incomplete and fragmented	12-18
Framework for accountability is not complete	12-21
Management Practices Need Improvement	12-22
Political direction has resulted in significant avoidable costs	12-22
Assessment of departmental performance needs to be improved	12-24
Departments should comply with the Real Property Manual	12-24
Changes in Management Have Taken Place — Key Elements Remain to be Implemented	12-31
Exhibits	
12.1 Changes in Real Property Management	12-9
12.2 Government Policy on Real Property	12-10
12.3 Central Management Responsibilities for Real Property	12-11
12.4 Responsibilities of Departments for Real Property	12-12
12.5 Property Administered by Sample Departments	12-13
12.6 Characteristics of Real Property Management	12-15



Aspects Of Federal Real Property Management

Assistant Auditor General: *David Rattray*
Responsible Auditor: *Reno Cyr*

Main Points

12.1 Since 1986, the Canadian government has implemented structural, legislative and policy changes in real property management. While this has laid the foundation for better management of the federal real property portfolio, we believe that significant opportunity and need for management improvement remain within this new regime. In our opinion, the policy that real property must be managed to the maximum long-term economic advantage of the government is at risk because there have been instances where property considerations have been subordinated to program requirements, political direction and/or financial constraints.

12.2 In part, problems identified by our examinations represent the cumulative effect of years of conflicting priorities for funds and of weak property management practices, such as maintenance deficiencies and failure to provide sufficiently for environmental clean-up costs, many of which were identified in our 1984 Report. Improvements are required in the acquisition and divestiture of property, the maintenance of property holdings, and planning for real property management. In our opinion, unless the problems are addressed decisively and quickly, the government will continue to incur avoidable costs and face mounting expenditures to correct current problems and preserve its real property assets.

12.3 The real property that the government administers and controls was estimated, by the Task Force on Program Review in 1985, to have a value between \$40 billion and \$60 billion. Current stated accounting policies of the Government of Canada do not call for real property held by individual departments to be recorded as assets, although there are indications that the government is seriously considering changes to this policy, and a decision is expected in 1995. We note, however, that the negative aspects of a capitalization policy must also be addressed, such as the administrative cost of implementation, and potential weakening of fiscal stewardship caused by leading people to believe that the government's overall financial condition is healthier than it is.

12.4 We have concerns that insufficient attention has been given to ensuring that the federal government's real property is managed in accordance with Treasury Board policies. We also note that program decisions are not always made with recognition of the cost implications related to real property. We have further concerns that the lack of knowledge of the costs of holding property as an element of the cost of program delivery weakens the government's accountability for the effectiveness of this investment and the preservation of the value of these assets.

12.5 The chapter also identifies several constraints to the businesslike management of real property. We believe that there is an urgent need for government to strengthen the central oversight of the management of real property, including improved monitoring practices, and to make changes that will reduce constraints, to ensure that these valuable assets are managed more economically and efficiently. We also believe that the government should include in this re-examination the lessons learned from the initiatives undertaken in other jurisdictions where similar real property management issues are being addressed.

12.6 Some key management tools for the management of real property are not yet fully implemented by the government. These include: a management information system that provides aggregated data on real property holdings to support acquisition, divestiture and maintenance policy decisions; effective accountability frameworks; and systematic assessments of departments, using clear measures of performance.

Introduction

12.7 Federal real property consists of land inside and outside Canada, belonging to the Crown and including mines and minerals, buildings, structures, improvements and other fixtures on, above or below the surface of the land.

12.8 The federal government administers and controls real property in all provinces and territories of Canada and in many of the countries where Canada maintains diplomatic missions. The federal government's stated accounting policies do not require that real property holdings administered by departments be recorded as assets. Instead, property costs are recorded as expenses in the year in which the acquisition occurs. In 1985, the Task Force on Program Review (Nielsen Task Force) estimated the value of all federal real property to be between \$40 billion and \$60 billion. This value was based on information from custodian departments and included national parks, Crown lands, military bases and federal facilities.

Background

12.9 Our Office has reported on real property issues under our value-for-money mandate since 1978 and has identified several recurring weaknesses in the asset management of real property. These have included weaknesses in project planning, project management and physical property management, and also have included political direction, one result of which is that property has been acquired at higher than necessary cost.

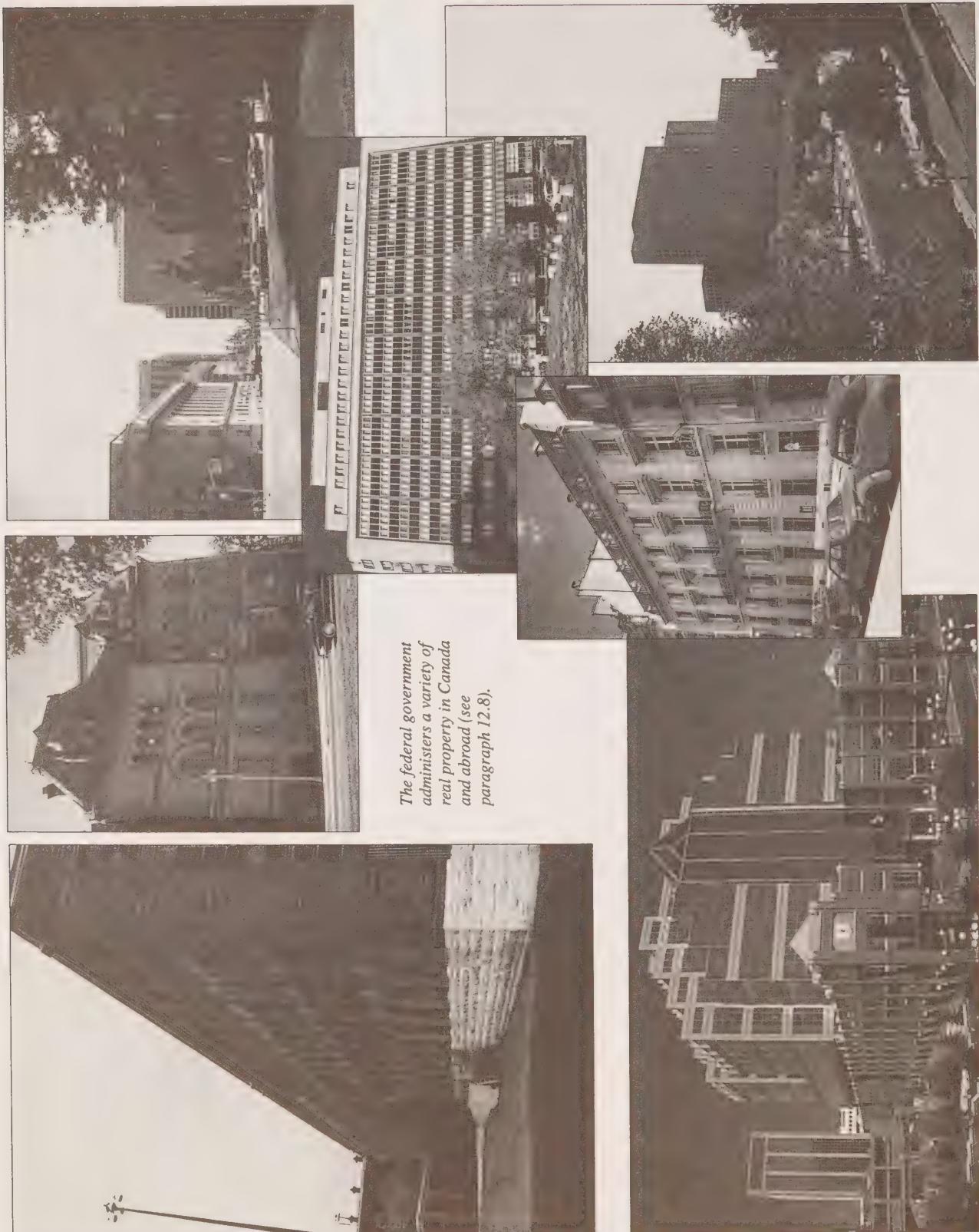
12.10 Following our 1984 Report and the 1985 Nielsen Task Force Report, changes were introduced in the federal government to improve real property management. These changes included:

assignment of inventory and accountability for real property to user departments; establishment within the Treasury Board Secretariat of a real property unit to provide central co-ordination; establishment of a new policy structure for real property; and new legislation and related procedures to simplify transactions concerning property. Some of the major changes are summarized in Exhibit 12.1.

12.11 Proclaimed in 1992, the *Federal Real Property Act* replaced or amended several Acts that governed the acquisition and disposition of real property. The goal of the new Act was to facilitate the conveyance of real property between government agencies and between the government and private individuals, and to make the internal processes for real property transactions more efficient.

12.12 The new Act did not materially affect other federal legislation such as the *Municipal Grants Act*, the *Expropriation Act*, and the *Environmental Protection Act*, or Codes such as the *National Building Code*. The consequential amendment to the *Financial Administration Act* gave the Treasury Board the authority to act for the Queen's Privy Council on all matters relating to the management and development of lands by departments. It also gave Treasury Board the authority to require, with respect to land management, departments to maintain records and to prepare plans. We found over 60 federal Acts and Codes other than those noted in Exhibit 12.1, in addition to provincial Acts and collective agreements, that affect the parameters within which real property management operates in the federal government.

12.13 Increasingly, all property, and especially that held by the Crown, has become a focus for people who have concerns about its use. The concerns



The federal government administers a variety of real property in Canada and abroad (see paragraph 12.8).

centre principally on environmental stabilization or remediation, ownership rights, and sacred or traditional uses of the land. In turn, many property transactions or development proposals may involve complex and lengthy procedures such as legal actions or public hearings. As a consequence, such transactions, particularly those involving large parcels of land, have become unavoidably expensive.

12.14 The policy and accountability framework for real property management is governed by Treasury Board policies. The specific responsibilities for management of lands are set out in the Real Property volume of the Treasury Board Manual (Real Property Manual), including the government's policy framework premised by the principle of

ministerial accountability for programs and for assets that are used to support their delivery. Accordingly, real property is decentralized and held by the departments that require the property. Departments are required to manage their real property as outlined in Exhibit 12.2.

12.15 Treasury Board is responsible for co-ordinating the management of real property, with the Treasury Board Secretariat in an advisory capacity. Within the Treasury Board Secretariat, the Bureau of Real Property and Materiel (Real Property Bureau) is responsible for providing corporate leadership for the management of real property and for advising Treasury Board on real property issues. Exhibit 12.3 outlines these responsibilities.

Exhibit 12.1

Changes in Real Property Management

Factors	Prior to 1986	Since 1986
Provision of accommodation, including assumption of costs	Department of Public Works managed all properties in the National Capital Region and all office space outside the National Capital Region, except for property administered by the Department of National Defence and the Department of External Affairs.	Departments needing special property to deliver programs assumed responsibility for administration of that property. Department of Public Works and Government Services is the designated custodian of general-purpose office properties in Canada. Department of Foreign Affairs and International Trade is the common services agency for Canadian government office and residential accommodation abroad.
Changes in generic governing legislation	<i>Public Lands Grant Act</i> <i>Public Works Act</i> <i>Surplus Crown Assets Act</i>	<i>Federal Real Property Act</i> <i>Financial Administration Act</i> authorizes Treasury Board to act in relation to the management and development of lands.
Central management	No central management of cross-portfolio issues. Treasury Board established budgets and approved individual transactions.	Treasury Board acts on behalf of the Governor in Council. Bureau of Real Property and Materiel established to co-ordinate the management of real property within the government.

12.16 Custodian departments are those possessing property for the delivery of their programs, such as Correctional Service Canada (Correctional Service) for prisons and parole offices; the Department of National Defence (National Defence) for military bases, which include training areas and armouries; and the Department of Foreign Affairs and International Trade (Foreign Affairs) for federal property abroad, other than some National Defence property. They are responsible for the administration of the special-purpose property assigned to them, as set out in Exhibit 12.4.

12.17 Public Works and Government Services Canada (Public Works) is the designated custodian of general-purpose office facilities provided on a mandatory basis to specified departments and agencies in Canada, and of real property that does not otherwise have a natural program organization, for example, the Parliamentary Precinct, certain common-use facilities, and miscellaneous infrastructures such as certain roads and bridges. The provision and regulation of office space is a recognized program of government for which Public Works is accountable. It is in recognition of this

program accountability that Public Works has custody of its assets and the related resources. This program is unique in government, in that it is the only one with the sole purpose of managing real property.

12.18 Departments must obtain all services related to real property in accordance with Treasury Board's Common Services policy. Many services related to real property are optional; departments may perform some of these services in-house or they may obtain these services from a common services organization, such as Public Works, or from the private sector. Optional services include architectural and engineering services, property management services, and acquisition and disposal services.

12.19 While changes have been introduced in Canada, real property management in other jurisdictions has also undergone reform. The assessment of the effectiveness of these reforms and the consideration of further reform is ongoing in Canada at the federal and provincial levels, and abroad. Approaches to the management of real property have also been undergoing examination in academic circles and in the private sector. In the private sector, there has been a recent recognition that real property is a strategic asset. The practices to manage this asset are still evolving.

12.20 In the case of other jurisdictions, several provincial and other national governments expressed dissatisfaction with the manner in which their real property was managed. The property management organizations were criticized for being unresponsive to client needs, uneconomical and inefficient. As a result, major initiatives have recently been undertaken in some of these jurisdictions; these initiatives are discussed in more detail later.

Exhibit 12.2

Government Policy on Real Property

The stated government policy on real property is:

"to acquire, manage and retain real property only to support the delivery of government programs, and to do so in a manner consistent with the principle of sustainable development. Within this context, real property must be managed to the maximum long-term economic advantage of the government, to honour environmental objectives, to provide safe and adequate facilities, and to respect other relevant government policies."

Source: Real Property volume of the Treasury Board Manual

Audit Scope and Criteria

12.21 We audited the real property management practices in the Treasury Board Secretariat, primarily the Real Property Bureau. Our audit objective was to determine whether the real property management practices of Treasury Board, together with the activities of Treasury Board Secretariat and its Real Property Bureau, are appropriate for managing

federal real property from a central perspective.

12.22 This chapter includes the aggregation and analysis of selected audit findings, based on predetermined common issues, from the examinations of Correctional Service (reported in Chapter 16), Foreign Affairs (Chapter 22), National Defence (Chapters 26 and 27), and Public Works (Chapter 34). Where findings from the other chapters support

Exhibit 12.3

Central Management Responsibilities for Real Property

Treasury Board/Treasury Board Secretariat Responsibilities for Managing Real Property

Treasury Board has the mandate to:

- co-ordinate the management of real property assets, which includes ensuring that property is assigned to appropriate departments and that property no longer needed is released for transfer or disposal;
- analyze departmental plans and programs, recommend to the government the acceptance or modification of expenditure plans, and prepare the Estimates for the approval of Parliament;
- manage the Area Screening Canada Program to provide an ongoing review of significant federal real properties; and
- the review of land transactions that request exception to government policy or that exceed the financial levels of authority established by the Treasury Board for Ministers.

Treasury Board Secretariat has the mandate to:

- monitor, and advise the Board, on the real property administered by departments and review the use of property from a central perspective;
- develop policies on real property and communicate government-wide objectives to departments;
- co-ordinate real property information and maintain the Directory of Federal Real Property;
- advise the Board on departmental long-term capital plans, on real property expenditures of departments and on individual real property projects and contracts;
- advise the Board on setting financial, time and other limits on the acquisition and disposition of real property by departments; and
- monitor compliance with government policies on real property through the examination of departmental Long-Term Capital Plans and departmental decisions, annual reports, departmental evaluations and internal audits, and Area Screening Canada reports.

Within the Treasury Board Secretariat, the Real Property Bureau has the mandate to:

- advise ministers on all matters related to real property;
- manage the information framework and central information systems;
- co-ordinate federal land use within a regional context;
- undertake selected land disposal initiatives;
- advise on investments and strategies for federal real property; and
- assess the performance of the custodian departments of real property.

Source: Real Property volume of the Treasury Board Manual; 1994-95 Estimates, Treasury Board Secretariat Part III

The four audited departments expected to spend over \$2 billion in 1994-95 to administer their property worth an estimated \$30 billion.

Exhibit 12.4

Responsibilities of Departments for Real Property

Source: Real Property volume of the Treasury Board Manual

an observation made in this chapter, they are referenced by chapter and paragraph number. Our audit objective was to establish whether real property assigned to departments was being managed in accordance with generally accepted principles.

12.23 The aggregated findings leading to our observations and conclusions in this chapter indicate general problem areas in real property management in the four departments. The observations and recommendations in this chapter apply only, but not necessarily equally, to the four departments audited and to the Treasury Board Secretariat. While the observations and recommendations may be applicable to all departments, a broader application cannot be supported by our audit activities at this time. The Treasury Board Secretariat may wish to consider this matter in its review of our audit findings, and to include all departments in any resulting policy changes, as appropriate.

Departments must ensure that the property is appropriate, limited and linked to their programs. They must:

- define and implement a framework for real property management;
- maintain information on the spectrum of their accountabilities, based on bilateral agreements between themselves and Treasury Board;
- plan their long-term property needs in a manner that is consistent with their Long-Term Capital Plans;
- show that the property they administer or acquire is to the long-term economic advantage of the government;
- maintain the value of the properties, provide a healthy and safe environment, and adhere to the government's heritage, accessibility, and environmental policies;
- keep records and participate in the Area Screening Canada Program; and
- monitor their compliance and progress with the policies through their own internal audits and program evaluations.

12.24 Our examination was limited to the management of land and buildings. Our conclusions are also based on findings in our previous annual Reports.

12.25 In this chapter, the term "asset management" refers to the use of, and investment in, the property, and includes planning for acquisition, making the acquisition, operation and disposition. "Property management" refers to the maintenance of the property.

12.26 Excluded from the scope was the management of other real property as defined by the *Federal Real Property Act*: mines and minerals; structures and improvements such as dams, roads and bridges; and other fixtures on, above or below the surface of the land.

12.27 The amounts of land and buildings held by the four departments included in our sample are shown in Exhibit 12.5. They account for over 68 percent of the building area administered by all federal government departments. The property has a value estimated by the departments to be about \$30 billion. The four departments reported in their 1994-95 Estimates that they expected to spend over \$2 billion on the administration of their properties for the 1994-95 fiscal year.

12.28 We set out to determine the extent to which the generally accepted management functions of planning, organizing, directing, controlling, and evaluating were being applied by the four sample departments and the central agency in their management of real property. We examined the overall policy framework in which the management of real property is exercised, identifying the applicable policies, objectives, responsibilities, authorities and accountabilities. We also examined the management tools and systems in place to support the activity and provide the

information needed for sound management decisions. We examined current real property management practices in the four departments, and the role of the central agency. We also sought to identify whether cost savings were possible through improvements in the performance of asset and property management. Finally, we reviewed related experiences in several other jurisdictions to determine whether useful lessons could be drawn from them.

12.29 The criteria used in this audit were drawn from a number of relevant and authoritative sources. These include:

- the Real Property volume of the Treasury Board Manual;
- the Capital Plans, Projects and Procurement volume of the Treasury Board Manual;
- Treasury Board's draft Guide to the Monitoring of Real Property Management,

dated September 1992 (subsequently revised, June 1994);

- the Guide on Auditing Major Capital Projects, published by our Office in 1989;
- Protocols for Building Assessment, published by the Institute for Research and Construction of the National Research Council and our Office in 1992;
- departmental standards and directives;
- reports issued by organizations such as the Building Owners and Managers Association, and reports from private sector real property management corporations;
- studies from academic sources; and
- reports of auditors general in other jurisdictions.

Departmental Responses

*Treasury Board Secretariat response:
Treasury Board Secretariat concurs with*

Exhibit 12.5

Property Administered by Sample Departments

DEPARTMENT	LAND		BUILDINGS			
	(Hectares)		NUMBER		FLOOR AREA (m ²)	
	Owned	Leased	Owned	Leased	Owned	Leased
Correctional Service	5,950	26	1,794	3	973,895	2,937
Foreign Affairs	66	87	416	1,706	139,950	352,595
National Defence	628,503	1,381,302	30,194	3,233	9,923,975	776,326
Public Works – Office Facilities	275	22	341	570	1,870,147	2,918,128
TOTAL FOR SAMPLE DEPARTMENTS	634,794	1,381,437	32,745	5,512	12,907,967	4,049,986
TOTAL FOR REMAINING DEPARTMENTS	18,376,782	1,008,159	17,845	880	7,173,028	659,654
TOTAL FOR ALL DEPARTMENTS	19,011,576	2,389,596	50,590	6,392	20,080,995	4,709,640

Source: Directory of Federal Real Property 1993

the recommendations in this chapter, noting that steps have already been taken to strengthen and integrate real property information systems, and improve the content and review processes for Long-Term Capital Plans. In addition, we note that we have been through a process of major reform of the real property system in Canada. As our reform agenda continues, so will our long-standing exchange of best practices with other jurisdictions both in Canada and abroad.

Public Works and Government Services Canada's response: *The chapter acknowledges the sustained efforts of government to improve the management of real property. PWGSC has worked toward establishing strategies, tools and a management framework and practices such as the Shared Accommodation Leadership strategy (SAL), the National Investment Strategy (NIS), and a Life Safety System compliance policy to support a quality control program. We are also taking steps to formalize "due diligence" practices and an accountability framework relating to health, safety and operating requirements. Moreover, we are working with Treasury Board Secretariat (TBS) on the development of the Real Property Inventory System and, specifically, we are developing a new generation of management systems including the replacement of PWGSC's Facilities Inventory System.*

In terms of the Municipal Grants Program, PWGSC is leading consultations with TBS and departments to examine alternative means of making departments more aware of the grants in lieu of taxes holding costs of property and to involve major custodians in administration of the program so that they are more aware of their impact upon it.

Moreover, and consistent with the principles of the National Investment Strategy (NIS) and the Real Property Branch (RPB) Asset Performance Monitoring Policy, the custodial

responsibilities under the government's heritage, environmental protection and accessibility policies are acknowledged, understood and incorporated into the current asset management planning processes. In all future long-term facilities planning, PWGSC will identify, where possible, the full impact (cost and/or facility use constraints) of the requirements under the heritage policy for all capital and operating decisions. PWGSC is currently tracking environmental and accessibility policy impacts where significant and feasible.

PWGSC remains fully apprised of developments through sponsorship of an active involvement in international fora on the management of real property and participates in multilateral meetings with governments, the private sector and facilities management organizations as well as bilateral exchanges with other government jurisdictions. We will continue to look at the experience and innovations of other government jurisdictions in developing proposals for organizational renewal.

Observations and Recommendations

Conflicting Government Objectives Often Make Sound Asset Management Principles Difficult to Follow

12.30 Generally accepted principles for sound asset and property management require that policies and objectives be clearly set out along with responsibilities, authorities and accountabilities. In discussions with private sector organizations, we identified characteristics that are considered typical of strong and weak asset and property management (see Exhibit 12.6). These same characteristics have been identified in academic studies based on experiences in the private sector. We used these characteristics to establish

an analytical framework for an overall assessment of the real property management practices we reviewed.

12.31 In the government, generally accepted management principles are subject to political or public policy considerations, or both. The government has also used real property acquisition projects in the past to achieve government objectives broader than meeting program delivery requirements. These projects have included locating facilities in certain regions to stimulate regional economies, establishing a federal presence, and providing leadership in implementing policies such as those on heritage, accessibility and the environment. The achievement of such broader objectives has sometimes resulted in costs additional to those that would have been incurred strictly to meet program delivery needs.

12.32 In our previous reports on real property acquisition projects, we were, in some cases, able to identify these additional costs for achieving broader

government objectives. Therefore, we conclude that it should be possible in most instances for departments to identify separately the real property costs incurred for program delivery needs and the additional real property costs incurred for achieving broader government objectives. Departments would then be able to compare their asset and property management performance on such properties with the performance of the private sector and identify where improvements might be needed. We believe this would be a particularly useful comparison for general-purpose properties such as office accommodation. However, direct comparison of performance with that of the private sector without taking into account the impact of government policies is not likely to be appropriate.

12.33 We examined the government's management of real property in light of both our analytical framework and the audit criteria. We noted instances, described throughout this chapter, where generally accepted management practices

Policy framework for real property management is appropriate. Decisions that depart from the framework may have considerable costs.

Strong Real Property Management:

- Presence of a formal, organized real estate unit with sufficient authority to carry out its functions and, for commercial companies, with its own board of directors who are knowledgeable in real estate matters
- Appropriate management information systems for real estate operations
- Property-by-property accounting methods
- Frequent reporting of real estate information to senior management
- Exposure of real estate executives to overall corporate strategy and planning
- Availability of information and methods for evaluating real estate performance and use
- Performance of real estate assets in comparison with overall corporate assets

Exhibit 12.6

Characteristics of Real Property Management

Weak Real Property Management:

- Failure to maintain adequate information systems on real estate assets
- Management attitudes: "real estate is a necessary cost of doing business" and "we do not manage our real estate in a businesslike manner"
- Operational concerns unduly influencing decision making
- Real estate managers who tend to be transaction- or project-oriented
- Failure to take property costs into account in making program decisions

Insufficient attention is given to ensuring that the federal government's real property is managed in accordance with Treasury Board policies.

Assets have been permitted to deteriorate to the extent that considerable expenditure would be required to restore them.

for real property have been subordinated to the priorities of program requirements, financial constraints, or both. The removal of the financial constraints could allow for investments in cost-saving measures, potentially reducing costs by millions of dollars annually. From our review of the policies and objectives in the Real Property Manual and our discussions in other jurisdictions and with private sector real property managers, we concluded that the policies and objectives that are set out in the Real Property Manual satisfy the requirements for the management of the government's real property. In our opinion, based upon the material that follows, insufficient attention is given to ensuring that the federal government's real property is managed in accordance with Treasury Board policies. Program decisions are not always made in recognition of the cost implications related to real property. There is room for significant improvement.

12.34 We recognize that, in the light of the current financial restraints, departments have initiated changes to streamline administrative functions and the efficiency of program delivery by reducing property needs (paragraphs 16.13, 16.73, 22.93, 26.47, and 34.46). These are welcome indications that the government is focussing more on the need to manage its real property assets. The chapter identifies areas of concern where, in our opinion, further improvements would result in significant cost reductions over the long term.

12.35 Our discussions with the real property managers in the public and private sectors have indicated that a distinction needs to be made between the program management issues that affect real property and the real property management issues themselves. The provision of adequate resources to meet

environmental protection requirements, the maintenance of the physical condition of properties, and the alternative uses to which property can be put are common real property management issues regardless of program uses. Program uses may set additional parameters on property considerations, and these parameters should be identified and costed. The program manager as the user should consider the costs of property in the costs of delivery of programs and should, as a matter of due regard to efficiency and economy, try to acquire the most cost-effective property to meet program needs.

12.36 In the federal government, as stated in the Real Property Manual, custodian departments are effectively both the owners and the users of property to achieve program objectives. As the "owner" of property used to achieve program objectives, the program manager has difficulty in balancing short-term program decisions with the long-term and inflexible nature of real property. Internal conflict results. Public Works believes it has solved the owner/user conflict by carrying out the owner/investor function separately from the tenant/user function.

12.37 Real property required by a department, other than office accommodation, is under the administration of that department, which includes authority within departmental levels to enter into transactions for the acquisition or disposition of real property. In effect, departments are charged with the responsibility for achieving an appropriate balance between short-term operational needs and long-term asset management considerations. The material that follows supports our belief that, generally, a better balance is needed and that real property costs can be reduced.

12.38 Our audits have shown several cases over the long term where the balance favoured a department's operational needs. For example, maintenance practices (described later in this chapter, beginning in paragraph 12.91) have been given such low priority that long-term real property objectives have been jeopardized. As a result, property values and the long-term usefulness of property to support program activities cost-effectively have been reduced. As reported in paragraph 12.98, departments have identified that the costs to upgrade facilities over the next decade could reach hundreds of millions of dollars.

12.39 We have been informed by the Treasury Board Secretariat that, "Consistent with an organization with limited financial resources and conflicting priorities, the real property inventory of the federal government has not received the maintenance and recapitalization necessary to maintain its value. On an individual asset and program basis, however, this may be consistent with a government anticipating major program reductions and a shrinkage of resources."

12.40 Treasury Board has the mandate to exercise a supervisory role in asset management (Exhibit 12.3). In a practical sense, Treasury Board has direct control over some property transactions by virtue of the lower authority levels given government departments for acquisitions and dispositions. In its broader role as the government's expenditure manager, Treasury Board exercises indirect control over property transactions, through resource allocations.

12.41 The Minister of Finance and Cabinet establish the fiscal framework, and Treasury Board manages and allocates the available resources to operating departments. As the expenditure manager

of the government, Treasury Board may approve resource levels that force departments to forego generally accepted asset or property management practices to achieve other government objectives. Furthermore, short-term political considerations or announcements in the Budget may override the long-term considerations of managing in accordance with generally accepted principles. For example, a 1975 National Defence study identified a minimum requirement of 12 bases but recommended to Cabinet reducing the existing 32 bases to 23. No significant action was taken (paragraph 26.21). It was not until 1989 that the government started announcing base closures. At the time of this audit, the Department held 30 bases. The 1994 Budget called for five of them to be closed and several to be reduced.

Key Management Tools Are Not Yet in Place

Accounting policies for real property need to be reassessed

12.42 In the government's stated accounting policies, capital spending is treated as a budgetary expenditure at the time of acquisition or construction. It is accounted for in the same manner as operating expenditures: by charging the cost directly to the deficit in the year in which the expenditure occurred. One result of the policy is to discourage long-term capital investments because they immediately increase the deficit, even when the benefits of the investment are received over a much longer period. With the emphasis on deficit reduction, any direct charges resulting from very large capital investments in any given year would be viewed unfavourably. Therefore, long-term lease-purchase arrangements, which previous audits have found to be more expensive by millions of dollars than acquisition through Crown

construction, have been used to acquire Crown property, effectively spreading the cost of purchase over many years.

12.43 If the government, at least at the departmental level, were to record real property assets as assets and amortize their cost over future periods, it would allow for better costing of programs by pro-rating over time the cost of such capital resources against their anticipated useful life. Greater visibility of more realistic annual costs would serve to better motivate departments to economize in their use of such property. Capitalization of real property would also, through increased visibility, stress the maintenance of the government's infrastructure and the level of funding needed to maintain the value of these assets. Together, capitalization and future amortization would give better information to support decisions when it is necessary to acquire or renew real property assets. Care would have to be taken, however, to ensure that such accounting did not weaken fiscal stewardship by leading people to believe that the government's overall financial condition is healthier than it is.

12.44 At the time of this audit, the government was undertaking a study to examine the feasibility and timing of changing its accounting policies for physical assets. As we understand it, this study will also address negative aspects of a capitalization policy, such as the administrative cost of implementation and the potential weakening of fiscal stewardship.

12.45 The Public Sector Accounting and Auditing Board of the Canadian Institute of Chartered Accountants has also initiated a project to study the most appropriate accounting policies for capital assets held by Canadian governments.

12.46 We are pleased to see that the government is giving serious consideration to this important issue and we are hopeful that a decision will be reached in 1995 as projected.

Management information systems are incomplete and fragmented

12.47 The Treasury Board Secretariat has the responsibility to co-ordinate the maintenance of information on the real property holdings of the government. The Treasury Board Secretariat informs us that "this role can be divided into three components:

- maintenance of the central inventory of federal land holdings, and the provision of an enquiry service relating to basic data maintained in this inventory (The Directory of Federal Real Property);
- maintenance of more detailed, descriptive, contextual and strategic information on the federal government's major holdings in an inventory whose use is directed at Treasury Board Ministers, and to those senior officials in the Treasury Board Secretariat who advise Treasury Board on strategic alternatives with respect to these holdings (Area Screening Canada Program); and
- promoting and assisting federal departments and agencies in the development and maintenance of appropriate management information on their holdings, particularly (but not exclusively) related to the two Treasury Board data bases described above; and providing leadership with respect to introducing management information standards among property custodians within the newly introduced management framework led by the Chief Informatics Officer."

12.48 The information contained in the Directory of Federal Real Property (the Directory), the Area Screening Canada property profiles and additional

information contained in records maintained by departments and agencies constitute the information through which accountability for real property is maintained to Treasury Board, Cabinet, Parliament and the general public.

12.49 The Directory has about 22,900 listings. Area Screening Canada profiles exist for approximately 2,500 of these listings, and contain additional information such as building age, construction and size. The completeness, accuracy and timeliness of both systems rely on inputs and verification by reporting organizations. This audit did not include tests of completeness and accuracy of the Directory; therefore, we cannot attest to its completeness and accuracy at this time. We have undertaken an examination of the Directory's system input and data administration procedures, and conclude that a proper framework is in place for input verification, data integrity and data security. The Real Property Bureau has observed, however, that a few of the over 60 reporting organizations are deficient in input and data administration, and states that considerable efforts are now incorporated into the system operation to remedy these deficiencies.

12.50 From a more systematic examination of Area Screening Canada data, we found that the information has not been kept up-to-date as required by Treasury Board policy and is of variable quality. We sampled Area Screening Canada data for three departments' holdings in Ontario and found that about 50 percent of the properties had outstanding issues reported (for example, vacant space, no program requirements, potential disposals, declared surplus, under-utilization). For 30 percent of these properties, the information was as much as five years out of date. The Real

Property Bureau acknowledges these and other deficiencies. It informs us that this is an inevitable consequence of concentration of limited resources on system development and initial data gathering, and that it is addressing these deficiencies with the reporting organizations concerned.

12.51 Information beyond that contained in the central inventories has to be obtained from departments, each of which has developed its own system. Because the systems are not integrated across departments or with a central system, information aggregated to give a government-wide perspective has to be collected manually.

12.52 The private sector considers an integrated system a critical element in making decisions. Our examination of information systems of private sector organizations and those of other jurisdictions indicates that these systems have the following key attributes:

- asset-specific description, condition, and operational and financial performance data;
- the ability to aggregate these data to the appropriate level of management;
- the ability to relate the assets to a specific business/product line (private sector), or program result or output (public sector); and
- integration with the other functional reporting systems of the enterprise (for example, accounting, personnel systems).

12.53 We have been informed that the Treasury Board Secretariat recognizes the value of integrating information at the centre. It has developed a core real property data model and has begun to integrate the Directory with Area Screening Canada, and to link information across government. At the time of our audit, the Real Property Bureau was

The Treasury Board Secretariat has concerns that adequate standards for real property records are not being maintained.

Deficiencies exist in departmental information systems.

reaching the end of the first phase of development, in which its two inventories had been redesigned, and data input was nearing completion. The second phase, in which new technology is to be used to further integrate and to automate these inventories, and during which the overall management information framework for real property in the government is to be further elaborated, started at the beginning of the fiscal year 1994. While it is too early to draw conclusions, we believe that the redesigned system must be complete, timely and accurate. Adoption of a more integrated management information system for managing the government's real property assets would, in our opinion, facilitate a more businesslike approach.

12.54 The Real Property Manual states that the Treasury Board Secretariat is responsible for maintaining the Directory and the Area Screening Canada Program, and also for ensuring "that adequate additional real property records are kept by departments and agencies that have the administration of the real property." The Treasury Board Secretariat has not assessed the adequacy of departmental information systems and so has no assurance that adequate real property records are being maintained by departments. The Real Property Bureau agrees that the third component of its responsibility for co-ordinating information on federal real property holdings, relating to departmental systems, has not yet been adequately addressed.

12.55 Our audits determined that deficiencies exist in the departmental information systems. We are concerned that departments may not have operational and management information available and organized in an appropriate manner for their purposes. For example, we found that the management information systems

in National Defence and Public Works do not maintain adequate information on the condition of buildings, their maintenance requirements, and their life expectancy (paragraphs 27.99, 34.58). A recent review of management information systems at Foreign Affairs concluded that a comprehensive information management plan should be developed and that the quality and timeliness of information need to be improved (paragraph 22.103). Treasury Board Secretariat has only recently developed an overall data and business model for federal property information management and a monitoring guide for real property policy issues. Until this effort is implemented, we will continue to have reservations about the adequacy of the information on which managers rely.

12.56 Information technology has improved significantly during the past decade and has become integral to doing business. As we report in Chapter 8, the Treasury Board has created the position of Chief Informatics Officer, responsible for delivering information technology, and has issued a *Blueprint for Renewing Government Services Using Information Technology*.

12.57 The overall benefits of applying the Blueprint are stated to be more efficient and effective program delivery, reduced overall costs across government, and the ability to maintain or even improve customer service in the face of fiscal restraint. One aim of the Blueprint is to develop and complement a standards-based electronic information infrastructure consisting of common information, applications, technology systems and networks to make it possible to share information.

12.58 We consider that the appointment of a Chief Informatics Officer is a positive signal of the government's willingness to

provide leadership. Application of the Blueprint to real property management offers an opportunity to address the deficiencies we have identified.

12.59 The Treasury Board Secretariat, in consultation with the departments, should finalize its management information systems framework. Departments should examine their information holdings and management information systems within the context of this framework, and develop and maintain appropriate and complete property records, and information systems that allow aggregation of descriptive and performance information at all levels of management.

12.60 The Treasury Board Secretariat should strengthen and exercise its leadership and monitoring role with regard to departmental real property records and information systems. In this regard, the Treasury Board Secretariat should continue to co-ordinate its efforts with the initiatives on information technology that are under development or are planned by the Treasury Board Secretariat's Chief Informatics Officer.

Framework for accountability is not complete

12.61 The administration of the federal government's real property has been assigned to departments. The Treasury Board needs to know whether departments are managing property adequately, and whether there is adequate management from a central perspective.

12.62 Treasury Board Secretariat officials have explained that the accountability regime for real property is as follows. The Treasury Board establishes the key corporate requirements

for real property within departments. These are reflected in the Real Property Manual. Ministers and departments are accountable for following the policies and for obtaining Treasury Board approval for any divergence from the established policies. The Treasury Board Secretariat is responsible and accountable for monitoring and overseeing how departments are exercising the accountabilities for real property management.

12.63 Treasury Board policy in the Real Property Manual states that "Bilateral agreements with departments will outline the requirements for specific reporting to the Treasury Board on the exercise of departmental accountabilities." Bilateral agreements have not yet been approved for most departments. We have been informed by the Treasury Board Secretariat that "the item in the policy manual is a hold-over from the days when departments were required to submit detailed reports to the Treasury Board. This statement should have been removed and it will be removed on the next policy revision." We noted that the Real Property Manual was last revised in November 1993 and this requirement remained in force.

12.64 Treasury Board Secretariat officials have indicated that the way in which they effect their monitoring and oversight role is through the review of the Multi-Year Operational Plans, Long-Term Capital Plans and individual project and transaction submissions. In addition, the Treasury Board Secretariat has management agreements with departments, on issues of shared concern, which may involve real property if there are issues of sufficient significance amongst other departmental and Treasury Board Secretariat priorities to warrant specific action. The Real Property Bureau

Treasury Board cannot be certain that there is adequate management of the government's real property.

Political direction on real property without reference to program delivery considerations may incur additional costs or forego potential revenues.

indicates that it maintains ongoing contact with real property managers in departments and discusses problems and upcoming plans regularly. The Real Property Bureau also uses Area Screening Canada profiles to obtain managerial information on individual properties.

12.65 We are concerned that real property may not be given sufficient attention with the current mechanisms for oversight that are in place. The resource review process (for example, the Multi-Year Operational Plan process, and Long-Term Capital Plans) has insufficient focus on the real property assets required for program delivery. The Multi-Year Operational Plan review is usually conducted by the Treasury Board Secretariat in a very short period of time when considerations other than real property issues can override considerations related to longer term investment. We believe, therefore, that it is possible that real property issues are not always focussed upon sufficiently within these processes.

12.66 From our assessment of the government's framework for accountability for its real property holdings, we have concerns that the lack of knowledge of the costs of holding property as an element of the cost of program delivery weakens the government's accountability for the effectiveness of this investment and for the preservation of the value of these assets. We also believe that the weaknesses in management information systems, identified earlier, further weaken the government's accountability. We conclude that the Treasury Board cannot be certain from a central perspective that there is adequate management of the government's real property. In our opinion, there is a need to ensure that real property issues are appropriately

considered when decisions are made concerning program management and resource allocation.

12.67 Our four audits identified several cases of poorly designed accountability relationships for real property management in departments. For example:

- No clearly established quality control program existed in Public Works to ensure "due diligence" on matters related to health, safety and operating requirements. Furthermore, some managers were not clear on accountabilities for these critical aspects of building management (paragraph 34.72).

- In National Defence, there is no single departmental manager responsible for married quarters (paragraph 27.68).

12.68 Treasury Board Secretariat should review and strengthen the mechanisms it uses in ensuring that departments are fulfilling their accountabilities for real property management and ensure that effective accountability frameworks are in place.

Management Practices Need Improvement

Political direction has resulted in significant avoidable costs

12.69 The federal government's management of real property has at times been subject to political direction. We recognize that the government has the prerogative of deciding how programs are to be delivered, but we believe that political direction on real property, without reference to program delivery considerations, may incur additional costs or forego potential revenues. There have been instances where direction has been given on the acquisition and disposition of real property for which the costs, the program authority, or the long-term

social, environmental or economic advantages to the government have not been determined by, or made known to, those making the decision.

12.70 We noted cases where political direction delayed the disposition of properties, causing annual operating costs to continue to be incurred. For example, until 1994, government concern about the impact of National Defence base closures on local economies was in part responsible for a delay in implementing decisions. During the delay, National Defence continued to bear the cost of keeping the bases open, in the face of increasing budgetary pressures. Our study of two bases showed that the federal government began achieving net savings fairly soon after the closures and that the economies of the two communities were

showing few ill effects from the closures (paragraphs 26.29, 26.30, 26.32).

12.71 We noted other cases where political direction resulted in the acquisition of property at higher costs than necessary. For example, Correctional Service has continued to favour a retrofit policy (paragraph 16.60). This preference is exercised although Correctional Service indicated, in its only cost-benefit analysis (done in 1981), that retrofitting would be more expensive than constructing a new facility at the existing location (paragraph 16.64). One explanation for this policy is that building new prisons can become politicized as part of regional socio-economic development considerations and can involve lengthy approval processes (paragraph 16.61). In the past, political decisions without



Political direction may result in increased expenditures and foregone revenues of millions of dollars – portions of CFB Toronto will be held as a “unique urban recreational green space” (see paragraph 12.72).



Source: Department of National Defence

**Treasury Board
Secretariat does not
assess formally and
systematically the
performance of
departments in their
management of real
property.**

supporting cost-benefit analyses have also reduced Correctional Service's ability to realize savings by co-locating new institutions at those sites that already have the infrastructure (paragraph 16.63).

12.72 We note that the 1994 Budget papers, as part of the base closure initiative, proposed to hold much of the land mass at Downsview (CFB Toronto) primarily as a unique recreational green space and could obligate the government to added expenditure as well as foregone revenue involving millions of dollars. These lands are currently under review to determine options for future use. The review includes a public consultation process.

12.73 We do not question the prerogative of the government to take these decisions, but we do observe that these decisions have considerable cost implications.

**Assessment of departmental
performance needs to be improved**

12.74 The Real Property Manual states that the Treasury Board Secretariat "assesses departments' performance in relation to government policies and approved departmental plans", and is to monitor departments' asset management performance by a review of departmental evaluations and internal audit reports. The Treasury Board Secretariat does not always receive such departmental reports and, when it does, the reports do not always contain information the Secretariat believes to be useful for a central oversight role. The Treasury Board Secretariat assesses asset management performance by reviews of Area Screening Canada profiles; analyses of Treasury Board submissions, Multi-Year Operational Plans, and Long-Term Capital Plans; and discussions with officials.

12.75 We expected to find formal, systematic and periodic assessments of the performance of custodian departments, which take into account the different sources of information, and also to find a variety of performance indicators specifically tailored to each department's operations.

12.76 The government has not adopted an array of performance indicators tailored to specific operational requirements, by which asset and property management and the achievement of real property performance objectives can be assessed. At the time of the audit, a draft monitoring guide had been prepared by the Treasury Board Secretariat. This guide is intended to assist managers in implementing the government's real property policies and in monitoring and assessing how well this is done within departments.

12.77 We conclude that the Treasury Board Secretariat does not assess formally and systematically the performance of departments in their management of real property.

12.78 **The Treasury Board Secretariat should initiate means to ensure that the performance of the four departments in managing their assigned real property portfolios is formally, systematically and periodically assessed. From that experience, Treasury Board Secretariat should look at broadening the approach to include all custodian departments.**

**Departments should comply with the
Real Property Manual**

12.79 Our examination of the asset and property management practices within departments has highlighted significant deficiencies. While individual departments adhere generally to the requirements of the Real Property Manual, the aggregation of deficiencies noted

below indicates that departments could improve their performance in meeting their responsibilities under the Real Property Manual.

12.80 Property in excess of need should not be retained. Sound property management practice in the private sector includes regular, periodic review of the need for real property and the divestiture of property that is neither needed nor economically sustainable. In the government context, however, such divestitures cannot always take place. We were informed that Public Works' National Investment Strategy is based on principles of holding only property that supports programs and disposing of the balance in accordance with Treasury Board policy. We were informed that non-performing Public Works assets are identified and that plans for action, including disposal, are developed as appropriate.

12.81 Our discussions with departments, however, indicated that they are slow to dispose of property, in part because of perceptions that there are several disincentives for divestitures. For example:

- Departments are not charged full costs of holding property in Canada and so are slow to consider property disposal as a means of cutting costs. For example, annual payments of approximately \$255 million for Grants in Lieu of Taxes, based on total property holdings, are made centrally by Public Works on behalf of the departments reviewed in depth in this audit. In principle, we believe that departmental program managers must consider the full costs of holding real property when making program decisions.
- There is a perception that, because revenues from disposals accrue to the Consolidated Revenue Fund, departments do not benefit from the proceeds,

although, Treasury Board Secretariat officials inform us, steps are under way to implement revenue-sharing agreements with National Defence and Correctional Service. Foreign Affairs has the ability to reinvest revenues from land sales.

- Some departments view "land banking" as a conservative and inexpensive contingency practice even when the justification for holding the property is outdated.
- Departments are aware that current market conditions may not permit the full revenue potential of disposals to be realized.
- Departments recognize that full market potential for the sale of surplus property may sometimes be realized only if the property is developed before its disposition, for which funds may not be available and policies may not be approved.

12.82 According to Treasury Board Secretariat officials, significant holdings have been divested in the past. The divestiture process permits departments, with Treasury Board approval, to recover some or all of the proceeds from the sale of properties. However, departments reported that requests for such approvals have had limited success as the government seeks to control its deficit. We believe, therefore, that the practice offers little incentive for departments to initiate disposals and that, accordingly, they do not do so. We are aware of several cases where departments are retaining property not strictly related to program delivery. For example:

- As reported in paragraph 12.50, we examined the latest available Area Screening Canada information (dated 1992) and we found that nearly 50 percent of the profiles had outstanding issues. We have been informed that many of these properties are either not marketable or not of sufficient value to merit priority attention with limited resources.

Departments could improve their performance in meeting their responsibilities under the Real Property Manual.

Nevertheless, this is indicative of the extent to which departments have property holdings with outstanding issues.

- National Defence provides about 22,000 permanent married quarters at a current annual net cost of about \$30 million (paragraphs 27.67, 27.68). The Department lacks a proper rationale for its requirement for married quarters (paragraph 27.73). The Department has been aware, for decades, of the high cost of providing married quarters but is only now addressing the problem (paragraph 27.79).

12.83 Treasury Board policy requires all divestitures to be at market value. We recognize that the full market potential cannot be achieved without due regard to the market environment. Divestiture strategies must recognize that area zoning and economic and environmental conditions dictate the best time for disposals. Further, we have been advised that it is government practice to control divestitures so as not to adversely affect local real property markets in Canada. Accordingly, we accept that the government cannot divest itself of many of its excess holdings if market conditions are not appropriate.

12.84 The Real Property Manual states that “Departments must regularly review the real property under their administration...and confirm that their current use of it is appropriate...Departments that no longer require particular real property for their program delivery must dispose of it by sale or transfer.” The inability to dispose of excess real property immediately because of market considerations should not deter departments from learning what opportunities exist and having a strategic plan to realize these individual opportunities. The Treasury Board and departments should be aware of the size of

the problem they face and have an overall long-term plan for a phased divestiture.

12.85 Treasury Board Secretariat should explore alternative mechanisms for ensuring that departmental program managers consider the full costs of holding real property, when making program decisions. This could include holding departments accountable for Grants in Lieu of Taxes.

12.86 Wherever possible, Treasury Board should support the sharing of land sales revenues, provided for under existing policy, to act as an incentive for departments to dispose of land no longer required to support program purposes.

12.87 Resolution of regional issues should be improved. In accordance with its mandate to co-ordinate federal land use within a regional context, the Real Property Bureau has conducted formal strategic studies, using the Area Screening Canada information as a starting point. These studies examined federal real property holdings regionally and identified regional issues, the resolution of which would offer potential improvements in asset and property management. The Real Property Bureau has informed us that the resolution of these issues requires not only the co-operation of the one or more federal departments concerned, but often negotiation with local and provincial governments and other private interests affected. Some parcels of land can be sold quickly “as is”, but this is not normally the case with the large urban parcels, which represent the largest potential value. Disposing of large urban parcels may require considerable time to satisfy the requirements of the local planning processes and may require significant “up front” investment for any necessary environmental remediation or to provide municipal services to make the

land marketable. Nonetheless, we believe that these constraints should not be used as an excuse to delay the start of this process.

12.88 Consistent with its mandate, the Bureau of Real Property and Materiel and the Treasury Board Secretariat should play a stronger role in co-ordinating interdepartmental regional real property issues, including divestiture strategies.

12.89 Planning for property acquisitions requires improvement. In 1985, the Nielsen Task Force noted that better accommodation planning was needed. In earlier annual Reports, we have identified many examples of weak planning and management associated with real property acquisition projects. We have also recommended that departments review their accommodation plans to ensure that planned acquisitions match their program needs. Departments have committed themselves to doing so, and we acknowledge that some improvements have been achieved. However, we found that, almost a decade after the Nielsen Task Force Report, departments and the Treasury Board Secretariat still need to make major improvements in their planning practices, as illustrated by the following examples:

- Although Correctional Service conducted condition surveys and prepared master development plans for its prisons (paragraph 16.60), Treasury Board has continued to approve Correctional Service's Long-Term Capital Plans and individual construction projects without ensuring that required life-cycle cost-benefit analyses have been undertaken. Furthermore, we noted that, since 1981, the Treasury Board Secretariat has not challenged Correctional Service's failure to include cost-benefit analyses in its submissions to the Board for approval

of accommodation projects. We are concerned that there has been no action on this deficiency, which we reported in our 1981 and 1986 audits (paragraph 16.64). Treasury Board must strengthen its challenge role if it is to ensure that due regard to economy is being demonstrated in departmental submissions.

- Correctional Service needs more accurate and up-to-date data on inmate security classification and placement in its long-range accommodation planning, and needs to adjust accordingly the mix of its prisons by security level (paragraph 16.42).

- In National Defence, planning for strategic force development and mobilization appears to be poorly linked to Facility Development plans, and the Department lacks strategies for managing effectively and rationalizing the existing infrastructure with long-term construction programming (paragraph 26.25).

- There have been instances of failure to clarify objectives during the planning phases of National Defence projects (paragraph 27.24).

- Public Works faces a major challenge in trying to forecast the office space needs of the federal government and to devise an appropriate strategy to respond to those demands in a cost-effective way (paragraph 34.39). Public Works recently issued the National Investment Strategy (paragraph 34.36). We believe that if this Strategy is implemented, substantial improvements can be achieved (paragraph 34.48).

- Developments in office design are reflecting changes in business practices that respond to advances in business technology. These developments suggest that the usefulness of properties could be reduced because of obsolescence and that requirements for space could drop dramatically, perhaps as much as 20 to 30 percent. Such a drop would exacerbate the existing problems of divestiture. So

Departments and the Treasury Board Secretariat still need to make major improvements in their planning practices.

Government does not know the extent of the backlog of required maintenance.

far, it appears that only Public Works has aggressively addressed this issue.

12.90 Treasury Board Secretariat should strengthen its monitoring and challenging of Long-Term Capital Plans and project approval submissions.

12.91 Inadequate maintenance of real property assets. Preservation of property values includes the maintenance of the physical plant. Without realistic values for real property and appropriate management information, it is difficult to decide whether to preserve properties and, if so, how much to spend. This lack of focus on the property to be preserved often results in diversion of funds from maintenance needs to more visible program needs. Accordingly, when funding cuts occur, maintenance funds are among the first to be reduced to meet the imposed financial objectives, and so are not available to preserve the asset. For example:

- Officials in National Defence told us that upkeep decisions frequently are based on crises or on availability of funds (paragraph 27.41).
- National Defence does not incorporate maintenance requirements into a repair and maintenance schedule unless there is a good chance of obtaining funds for undertaking the necessary work (paragraph 27.42).
- In Public Works, there appears to be no consistent preventive maintenance philosophy. In our opinion, Public Works needs to ensure that appropriate maintenance standards, based on sound public and private sector practices, are in place and consistently applied in all regions (paragraph 34.73).
- In response to concerns about the federal deficit, the maintenance and capital budgets in Public Works have been restrained (paragraph 34.56). This restraint over the past 10 years prevented

the Department from undertaking the major maintenance and renovations required to keep its asset base current and at industry standards (paragraph 34.57).

12.92 The diversion of funds away from maintenance requirements may be justified in some cases, in terms of life-cycle cost. In effect, some properties may not be worth preserving, because of changes in program needs since acquisition or because of the properties' state of repair. In such cases, departments may allow the buildings to deteriorate through a program of reduced maintenance funding. In most cases, from a life-cycle cost perspective, the preservation of property values through an adequately funded maintenance program is the least expensive and, therefore, the most logical strategy. However, Public Works officials have been informed that, given the tight fiscal situation, Treasury Board has discouraged funding proposals for renovations and space optimization projects unless they are required for health and safety reasons or have short payback periods. This situation has clearly hampered the Department's ability to obtain funding for renovations that could result in substantial savings to the government over the longer term (paragraph 34.38). Clearly, this does not support a more businesslike approach to asset management.

12.93 We noted that the government does not know the extent of the backlog of required maintenance, the full cost of which can only be estimated at this point. For example, National Defence has never estimated the total cost of its deferred maintenance. We have estimated that it amounts to approximately \$1.7 billion, or 13 percent of the plant replacement value (paragraph 27.43).

12.94 The Treasury Board Secretariat should ensure that departments determine the life-cycle savings that

might be generated by improving maintenance practices for real property.

12.95 Potential costs of meeting government policies on heritage, and laws and regulations on health and safety and on environmental protection are unknown. The Real Property Manual requires adherence to the federal policy on heritage. There must also be compliance with federal and provincial laws and regulations concerning health, safety and the environment. Departments and the Treasury Board Secretariat have not determined the long-term budgetary implications of such compliance.

12.96 The average age of Correctional Service institutions and office buildings in Public Works' portfolio is over 40 years (paragraphs 16.12 and 34.30). Some of these buildings have been upgraded to modern standards but others require significant expenditures for upgrading. For example, Public Works estimates that approximately 80 buildings require upgrading (paragraph 34.30). There are

buildings in the federal portfolio that could be, or have been, assigned a heritage designation.

12.97 Our audits did not specifically address the central advice and support needed on the issues of heritage conservation. Yet our review of project management cases and our discussions with officials in departments and the Treasury Board Secretariat led us to conclude that insufficient attention has been given to the cost of heritage issues. We believe that the management of heritage buildings raises some property management issues that are not fundamentally different from the property management issues for other buildings, such as environment and energy savings. However, a fundamental difference in asset management exists because heritage policy requires that all buildings with a heritage designation be reviewed prior to demolition. This can result in delays that are costly to program operations.



Potential costs of meeting government policies and laws on heritage, health and safety, and environmental protection are unknown (see paragraph 12.95).

12.98 The additional funds required to make existing facilities meet current building codes and policies, if all facilities are to be retained, is conservatively estimated to be in the hundreds of millions of dollars. For example:

- Public Works officials have estimated that approximately \$300 million over the next five years will be needed to carry out required upgrading of office facilities (paragraph 34.33).
- National Defence calculates that it needs \$40 million to \$60 million for each of the next 10 years, to replace major utilities and works alone (paragraph 27.37).

12.99 We have been informed by the Treasury Board Secretariat that the government anticipates major program shrinkages resulting in the abandonment of many facilities.

12.100 We have been informed that National Defence and Public Works have conducted environmental audits for the major portion of their real property holdings. In some cases, however, the stabilization or remediation needs may be so large as to preclude any economical alternatives for the properties. The government is faced with expenditures of unknown but potentially significant amounts to correct environmental problems. Using best estimates available, we calculate that National Defence faces a cost of approximately \$700 million for environmental clean-ups at 27 bases (paragraphs 27.91, 27.88).

12.101 The Treasury Board Secretariat and departments should estimate the long-term budgetary implications of meeting government policies and laws on heritage, health and safety, and environmental protection.

12.102 Government policy requires barrier-free access to government buildings by the end of fiscal year 1994-95 so that persons with disabilities can use federal real property. Departments have planned for implementation of this policy. Their plans are being followed, although there is significant slippage of the time-frames that were established. Departmental status reports indicate that departments may not have the outstanding work completed by the end of the fiscal year. Departments have indicated that they expect that 78 percent of the largest Crown-owned and 93 percent of the largest Crown-leased buildings will have complied by the end of 1994-95. In the next category of building size, however, only 33 percent of Crown-owned and 78 percent of Crown-leased buildings are expected to have complied by the end of 1994-95. The total estimated cost to comply with this policy is \$322 million. However, work valued at only about \$105 million has been performed to date. The issue in this case is not that the program costs will be exceeded, but that departments will not meet the government deadline for implementing barrier-free access.

12.103 Cost avoidance possibilities should be pursued. Our audits revealed that departments have identified cost-saving measures that would reduce the annual operating costs for managing real property. We have been informed that plans for implementing such measures are still under development. It should be noted that, in some cases, significant capital expenditures would be required to renovate federal buildings before the projected savings could be achieved. Departments and the Treasury Board Secretariat have identified several initiatives that could have impressive

pay-back potential, as the following examples illustrate:

- Energy conservation measures across the government could save about \$100 million annually through the Federal Building Initiative (paragraph 34.80).

- Improving the efficiency of water use in federal facilities could save about \$30 million annually (paragraph 34.83).

- Based on the 1992 operational review of Public Works, reduction and simplification of administrative practices are expected to result in annual savings of about \$12 million (paragraph 34.115).

- Rationalization of National Defence infrastructure, under one proposed model, would require between \$1.3 billion and \$2.5 billion in new construction but could result in an enhanced military capability and annual savings of between \$360 million and \$970 million, depending on the chosen configuration, chiefly through consolidation of support staff (paragraph 26.47).

- Correctional Service, if it fully applies its new, double-bunking, shared accommodation policy, could avoid additional spending in excess of \$135 million in one-time future real property capital costs for building new prisons. The adoption of this policy could also reduce annual operating costs by \$34 million (paragraph 16.74).

- In internal studies at some of its institutions, Correctional Service has identified that annual net cost reductions of thousands of dollars are possible in the treatment of waste.

12.104 Treasury Board Secretariat should encourage departments to pursue cost avoidance measures in their real property inventory.

Changes in Management Have Taken Place — Key Elements Remain to be Implemented

12.105 The federal government has recognized that a fundamentally different approach to asset management is necessary for the economical and efficient use of real property resources. It has also implemented the basic structural and regulatory changes designed to improve central and departmental management. Of those departments we are reporting on this year, Foreign Affairs, National Defence and Public Works have instituted new management structures. Foreign Affairs has Treasury Board approval for a Special Operating Agency. National Defence has proposed a Special Operating Agency for the management of its married quarters, and Public Works has stated that it has initiated a new management regime.

12.106 These changes in management structures represent moves toward improved asset and property management, but are, we believe, insufficient without the removal of constraints to improve management practices. We were informed by officials in all four departments that initiatives are under way to start to



Progress is being made; however, departments may not meet the government deadline for implementing barrier-free access (see paragraph 12.102).

address some of the problems we report, but that resolution of the problems will take time. We believe there is a need to reduce constraints and increase the pace of change at all levels of the government's asset and property management, in order to gain significant improvements.

12.107 Changes have recently been initiated in some other jurisdictions that manage real property, notably, British Columbia, Sweden, Australia and Great Britain. The changes were seen to be necessary for improvement, and the required political will was present to implement proposed initiatives. We reviewed the experiences in these other jurisdictions to gain an understanding of the processes and the results of the instituted changes.

12.108 Each jurisdiction examined fundamental questions about its asset management practices, such as whether departments should be given greater freedom to select accommodation, including from the private sector; whether departments should be charged for the accommodation being used; and the degree of responsibility and accountability for accommodation that should be delegated to departments.

12.109 The jurisdictions responded in different ways:

- In British Columbia and Sweden, the governments created Crown corporations with commercial mandates.
- In Australia and Great Britain, the changes that have been made provide flexibility for restructuring the property management regime, including, in our opinion, possible consideration of Crown corporation status.
- In each case, developments have reached a milestone, and the options for future directions, such as whether to commercialize further or to privatize, are

now being examined by the government concerned.

12.110 The principal difference between the approaches adopted in British Columbia and Sweden and those adopted in the other jurisdictions is that the creation of Crown corporations resolved an issue that still needs to be resolved elsewhere. That is, when departments are subject to user-pay considerations and have the option to seek property in the private sector as well as in the government sector, there is a risk that government holdings will be vacated. There is also the consequent risk that the taxpayer will end up paying for both the new accommodation and the vacant property.

12.111 Crown corporations have the freedom to dispose of properties and use the proceeds to refurbish the remaining holdings, using "business" criteria in making decisions. Such refurbished holdings offer program managers the choice of moving into acceptable accommodation at lower rates. While it is possible to establish within government a financial structure that would permit operations along such "business" lines, this would restrict the ability of the government to use real property or to control funds to meet other government objectives. Governments in Great Britain and Australia are being asked to give public servants direction on this fundamental choice.

12.112 Although the fundamental issue of the control of funds has not been resolved, the Australian Department of Administrative Services reported that real property reforms have resulted in benefits that include an annual return to the Consolidated Revenue Fund of some A\$140 million (approximately Cdn\$140 million) and annual efficiency savings of 40 percent on repairs and maintenance. British Columbia's

streamlining of operations, where the control of funds was given to a provincial Crown corporation (British Columbia Building Corporation), saves the taxpayers some \$25 million annually. Its energy management program saves an additional \$7 million annually.

12.113 The United States and Great Britain have enabling legislation that requires government departments to submit support functions to private sector competition. Canada does not have such legislation (paragraph 27.57). Nevertheless, both Public Works and National Defence have had some successful experiences in this field.

12.114 These other jurisdictions are beginning to report the achievement of major savings in their asset and property management activities. It should be noted that these changes and savings relate primarily to office accommodation and not to special-purpose facilities. The federal government in Canada is taking steps to improve its asset management practices.

12.115 The Treasury Board Secretariat and departments should evaluate the experiences in other jurisdictions, as they begin to address the problems identified in this Report, and should incorporate proven approaches where appropriate.

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents

Volume Chapter

1	Introduction
1	Matters of Special Importance and Interest
2	Follow-up of Recommendations in Previous Reports
3	Other Audit Observations
4	Background on the Audit Process
	Appendices
A.	Auditor General Act
B.	Financial Administration Act – Extracts from Part X
C.	Reports of the Standing Committee on Public Accounts to the House of Commons
D.	Report on the Audit of the President of the Treasury Board's Report to Parliament: Tablings in Parliament for Parent Crown Corporations: Annual Reports and Summaries of Corporate Plans and Budgets
E.	Taking Stock of Special Operating Agencies – A Summary of Conclusions of Joint Public and Private Sector Steering Committee
	Studies
2	5 An Innovative Society and the Role of Government
3	6 Study of Key Federal Social Programs
4	7 Information for Parliament: Departmental Reporting on Sectoral Activities and Follow-up of 1992 Chapter on Departmental Reporting
5	8 Information Technology – Reaping the Benefits and Managing the Risks
	Audits
6	9 Science and Technology – Overall Management of Federal Science and Technology Activities
	10 Science and Technology – Management of Departmental Science and Technology Activities
	11 Science and Technology – The Management of Scientific Personnel in Federal Research Establishments
	32 Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents (cont'd)

Volume	Chapter	
7	12	Aspects of Federal Real Property Management
8	13	Federal Management of the Food Safety System
9	14	Agriculture and Agri-Food Canada – Farm Income Protection
10	15	Atomic Energy Control Board – Canada's Nuclear Regulator
11	16	Correctional Services Canada – Custody of Inmates
	17	National Parole Board
	18	Correctional Services Canada – Supervision of Released Offenders
12	19	Environment Canada – Environmental Partners Fund
	20	Environment Canada – Ice Services
13	21	Foreign Affairs and International Trade Canada – Technical Assistance Contributions to Central and Eastern Europe and the Former Soviet Union
	22	Foreign Affairs and International Trade Canada – Financial Management and Control
14	23	Indian and Northern Affairs Canada – Social Assistance
15	24	National Defence – Defence Management Systems
	25	National Defence – Information Technology
	26	National Defence – Infrastructure Reductions
	27	National Defence – Infrastructure Management
16	28	Revenue Canada – Customs Assessment Activities
	29	Revenue Canada – Collecting Income Tax Debts
	30	Revenue Canada – Goods and Services Tax: Audit and Special Investigations
	31	Revenue Canada – Ensuring Fairness of the Income Tax System: Detection of Non-Filers and Special Investigations
	32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development
	33	Department of Finance and Revenue Canada – Tax Assistance for Retirement Savings
17	34	Public Works and Government Services Canada – Management and Operation of Crown-owned Office Buildings

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1994 Report of the Auditor General of Canada to the House of Commons

Volume 8 – Table of Contents

Chapter	Page
13 Federal Management of the Food Safety System	13-3

The audit work reported in this volume was conducted in accordance with the legislative mandate, policies and practices of the Office of the Auditor General. These policies and practices embrace the standards recommended by the Public Sector Accounting and Auditing Board (PSAAB) of the Canadian Institute of Chartered Accountants.

Chapter 13

**Federal Management of the
Food Safety System**

Table of Contents

	Page
Main Points	13-5
Introduction	13-7
Background	13-8
The federal approach to food safety	13-9
Food safety is a shared jurisdiction	13-10
The 1986 federal food safety reforms	13-11
Audit Objectives and Scope	13-12
Observations and Recommendations	13-12
Organization and Responsibility for Federal Food Safety Activities	13-12
The Interdepartmental Committee on Food Regulation has not completed its assigned tasks	13-14
Health Canada has the primary role for food safety	13-15
Federal food safety standards and inspection approaches differ among departments	13-17
Health Canada cannot ensure that the food safety provisions of the Food and Drugs Act are applied fully and effectively	13-17
Inspection of Domestically Produced and Imported Food	13-18
Responsibility for inspection coverage within some federally registered establishments is unclear	13-18
Resources for inspection of food-processing establishments are allocated on the basis of safety and trade requirements	13-21
Targets for inspection frequency are not being met	13-22
Innovation and efficiency in food inspection vary among departments	13-23
A new Canadian Food Inspection System has been proposed	13-25
Imported food is receiving increased attention	13-26
Departments have not achieved the desired co-ordination of import control activities	13-27
Improved co-ordination with United States food inspection agencies could lead to better coverage of food imports	13-29
Cost Recovery	13-29
Federal food inspection costs are not recovered in accordance with Treasury Board policy	13-30
Reporting to Parliament on Food Safety Activities and Results	13-30
Information in the Estimates Part III is incomplete	13-31
The overall effectiveness of federal food safety activities is unknown	13-31
Recommendations to the Interdepartmental Committee on Food Regulation	13-32
An agenda for the Interdepartmental Committee on Food Regulation	13-33

Table of Contents (cont'd)

	Page
Exhibits	
13.1 Federal Food Management Resources (1993–94)	13–7
13.2 Value of Food Production in Canada (1990)	13–8
13.3 Survey of Canadian Consumers' Attitudes	13–9
13.4 Sources of Food–Borne Illnesses	13–10
13.5 Federal Food Legislation	13–11
13.6 Chronology of Recent Food Safety Events	13–13
13.7 Emergency Operations	13–16
13.8 Allocation of Additional Funding by Department (\$ millions)	13–17
13.9 Federal Inspection of Food Processing Establishments (1993–94)	13–19
13.10 Federal Food Safety System for the Inspection of Domestic Production	13–20
13.11 Examples of Foods in Health Hazard Risk Categories	13–21
13.12 Federal Inspection Resources by Health Hazard Risk Category (1993–94)	13–22
13.13 Federal Food Safety Testing Laboratories	13–24
13.14 Survey of Consumers' Attitudes	13–27
13.15 Measurable Effects of the Food Safety System That Could Be Examined by a Program Evaluation Study	13–32
Appendix 13.1 Concurrent Review of Third–Country Food Imports	13–35
Appendix 13.2 Letter from the Comptroller General of the United States	13–41



Federal Management of the Food Safety System

Assistant Auditor General: David Roth
Responsible Auditor: Bill Rafuse

Main Points

13.1 Canadian food products are recognized as safe and of high quality. The federal food safety system works to ensure that food processed for sale in Canada and abroad is safe. In the opinion of Canadians and our international trading partners, these efforts are successful.

13.2 Federal management of the food safety system is co-ordinated by the Interdepartmental Committee on Food Regulation, established in 1986. Health Canada, Agriculture and Agri-Food Canada, Fisheries and Oceans Canada, Industry Canada and Revenue Canada-Customs manage and deliver the federal program of food safety. The cost of this regulatory program, including the trade-related inspection activities, was \$226 million in 1993-94, with salaries of the 3,600 federal employees accounting for most of that expenditure.

13.3 The goal of food safety programs is to reduce to negligible or acceptable levels the risk to human health. Food safety regulations are found in the *Food and Drugs Act* and, in some cases, are elaborated further in several other federal and provincial statutes.

13.4 In 1986, the Interdepartmental Committee on Food Regulation was given a mandate to implement specific changes to the food safety system and to promote innovation and efficiency in food inspection. The Committee has yet to complete all of the assigned tasks and has not reported as intended. Although progress has been made, several steps are still needed to promote efficiency and ensure that the system remains effective in keeping Canada's food supply safe.

13.5 Health Canada cannot ensure that the food-related health and safety provisions of the *Food and Drugs Act* are applied fully and effectively to all food produced domestically or imported for sale in Canada. Gaps exist in the information received from inspection agencies and in the coverage they achieve.

13.6 The federal resources for food inspection are allocated on the basis of legislated safety and trade requirements. One half of the federal inspection resources are spent on low-risk food processes, primarily to satisfy trade requirements. Without this expenditure, for example, meat and some fish products could not be exported.

13.7 The federal and provincial governments have proposed a new Canadian Food Inspection System in an effort to harmonize food safety standards and streamline inspection activities.

13.8 Departments have not complied with the Treasury Board's policy on cost recovery. In the five years the policy has been in place, hundreds of millions of dollars have not been recovered from industry for both safety- and trade-related inspection services.

Main Points (cont'd)

13.9 The Estimates Part III does not provide members of Parliament and others with an overall understanding of federal food safety activities. Information on objectives, resources and performance is not readily available.

13.10 The members of the Interdepartmental Committee on Food Regulation are collectively responsible for ensuring that federal food safety programs are evaluated periodically. They have not carried out this responsibility and, as a result, the effectiveness of federal spending on food safety is unknown.

Introduction

13.11 Canada is recognized as a country with an abundant supply of food that is safe, nutritious and of high quality. Food quality refers to the wholesomeness and grade of food, and nutrition to its value in the human diet. The safety of food refers to the risk to human health. The goal is to reduce to negligible or acceptable levels any human health risk.

13.12 The main risks to human health are from chemical and microbiological contamination and natural toxins. Secondary risks arise from the mislabelling of allergens, additives and preservatives. These risks are present during the production, processing and distribution of food, and extend to its eventual consumption in restaurants, institutions and the home.

13.13 Our audit examined the organization and co-ordination of food safety activities among the five federal departments directly involved in delivering the federal mandate for food safety. The 1993-94 federal expenditures on food safety and quality programs, by department, are presented in Exhibit 13.1.

13.14 The statutory requirements are found in the *Food and Drugs Act* and Regulations and several other federal statutes that regulate international and interprovincial trade and commerce in food and food products. The food safety activities of the five federal departments include:

- setting food safety standards and regulations;
- developing methods to identify food-borne risks;
- inspecting imported foods and food-processing establishments, including their products and monitoring processes;

- enforcing regulations and standards;
- investigating complaints and incidents of food-borne illness; and
- educating and informing industry and the public.

13.15 Provincial governments also play a large role in ensuring the safety of the Canadian food supply. Under their public health and intraprovincial trade mandates, they regulate and control certain aspects of food safety, mainly at the retail and food service level.

13.16 Food producers, processors and distributors also have a very important role in managing the health risks associated with the food supply. Many food-processing establishments have modified their quality assurance programs to control risk, and some have adopted food safety practices that exceed federal standards. Of course, the educated and informed consumer must accept some measure of the risk for food prepared in the home.

13.17 In 1988, we reported on the food inspection programs of Fisheries and Oceans Canada and Agriculture and

Our audit examined the organization and co-ordination of food safety activities among the five federal departments directly involved in delivering the federal mandate for food safety.

Exhibit 13.1

Federal Food Management Resources (1993-94)

Department	People	(\$000s)
Health	767	57,666
Agriculture and Agri-Food	2,272	133,292
Fisheries and Oceans	486	29,948
Industry	115	5,064
Revenue Canada – Customs	Not Available	Not Available
TOTAL	3,640	225,970

Source: Departments of Health, Agriculture and Agri-Food, Fisheries and Oceans, and Industry

The Interdepartmental Committee on Food Regulation is responsible for planning and co-ordinating the federal food safety system.

Agri-Food Canada. At Fisheries and Oceans Canada we found that procedures to inspect fish products for health and safety defects were adequately controlled. The audit at Agriculture and Agri-Food Canada concluded that the Department had not fully determined which risks were most serious to human health and safety so that its resources could be concentrated in those areas. Also, the audit recommended that several key inspection practices be strengthened. Our 1990 follow-up work at Agriculture and Agri-Food Canada found that these issues were being addressed.

13.18 In 1991, we examined the cost-recovery practices of the inspection programs of Agriculture and Agri-Food Canada and, as part of our 1993 audit of that Department's Agri-Food Policy Review, we examined the review activities related to the pesticide registration system.

13.19 The Interdepartmental Committee on Food Regulation is responsible for planning and co-ordinating the federal food safety system. Our

recommendations (see paragraphs 13.124 and 13.125) are therefore addressed to that committee.

Background

13.20 The Canadian food industry has a major impact on the national economy. In 1990, food processing was the second largest industry in Canada's manufacturing sector, with production at \$39 billion (see Exhibit 13.2) and employing 200,000 workers.

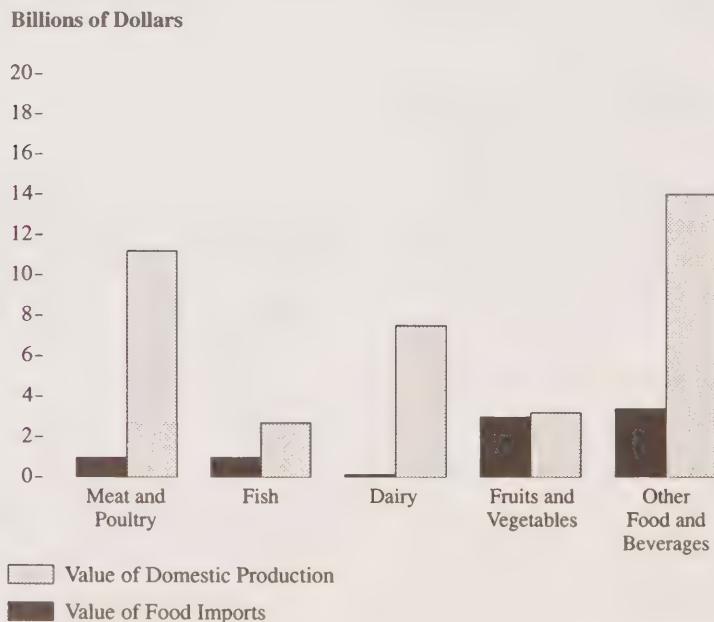
13.21 One quarter of Canada's food production is exported and our trading partners recognize these products to be safe and of high quality. Canadians also believe that the food they purchase is generally safe (see Exhibit 13.3).

13.22 When unsafe food is consumed, food-borne illnesses may result. Data published by Health Canada for the period 1975-1987 showed that an average of 940 incidents of food-borne illness, affecting 6,681 people, are reported each year. As Exhibit 13.4 shows, 74 percent of incidents of food-borne illness occur in restaurants or the home. The majority of

Exhibit 13.2

Value of Food Production in Canada (1990)

\$39 billion of food production is subject to federal and provincial inspection. A further \$8 billion of food imports is subject to federal inspection.



Source: Statistics Canada

these incidents are a result of food that is mishandled or improperly cooked.

13.23 The scientific community generally agrees that there are far more incidents than are reported by Health Canada. Estimates of the true number of Canadians affected annually by food-borne illnesses range widely, up to two million. Whatever the real number, the associated cost to the Canadian economy is considerable. According to Health Canada estimates, the increased health care costs, reduced productivity and lost markets amount to two to six billion dollars annually.

The federal approach to food safety

13.24 Federal food inspection programs were introduced in Canada as early as 1907 to control the spread of disease from animals to the food supply. Inspection programs were increased or modified over the years as new risks — bacteria, chemicals and toxins — were identified.

13.25 The *Food and Drugs Act* and Regulations set standards relating to safety and fraud for all food sold in Canada; their enforcement is provided for in criminal law. Other federal statutes containing food standards include the *Meat Inspection Act*, *Fish Inspection Act*, and *Canada Agricultural Products Act*. Those three statutes are intended primarily to enhance the marketability of food products traded interprovincially and internationally, through a combination of safety, quality and grading standards. The *Consumer Packaging and Labelling Act* establishes the labelling requirements for consumer products packaged for sale in Canada. All of these statutes contain standards or specifications that complement or further define the food safety standards set out in the *Food and Drugs Act*. Exhibit 13.5 summarizes the

scope of the federal food legislation in terms of the commodities and the food industry affected.

13.26 Health Canada has overall responsibility for health, safety and nutritional aspects of food, by virtue of the *Food and Drugs Act* and Regulations. This responsibility extends to food produced domestically and food imported for sale in Canada. Agriculture and Agri-Food Canada and Fisheries and Oceans Canada share the food safety responsibilities with Health Canada, and further regulate the marketability (quality, grade, safety, etc.) of food products traded interprovincially or internationally. Agriculture and Agri-Food Canada also has overall responsibility for the fraud and labelling provisions of the *Food and Drugs Act* at other than the retail level. Industry Canada is responsible for the general labelling provisions of the *Consumer Packaging and Labelling Act* and Regulations that apply to all pre-packaged consumer goods. It is also responsible for the enforcement of the fraud and labelling provisions of the *Food and Drugs Act* and Regulations at the retail level of trade. Revenue Canada—Customs plays a significant supporting role by notifying federal

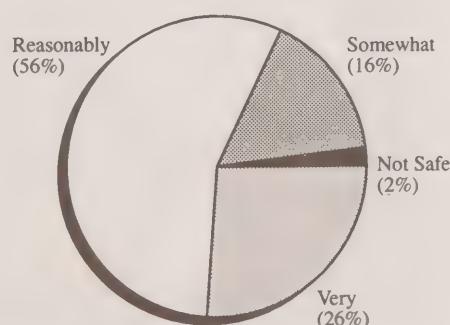


Exhibit 13.3
Survey of Canadian Consumers' Attitudes

To what extent do you think the food we buy in Canada is SAFE?

Source: Consumers' Association of Canada (1990)

departments of shipments and enforcing import regulations at ports of entry.

Food safety is a shared jurisdiction

13.27 The provincial and territorial governments have jurisdiction over public health matters, which extend to food manufactured, traded and sold within their borders. Together, they spend \$50 million a year to inspect food-processing establishments. Provincial governments also inspect food retail facilities and the food service sector. In some provinces, municipal governments are also involved in regulation enforcement. In general

terms, provincial legislation that refers to or parallels the federal requirements allows for the inspection of all establishments where food intended for human consumption is kept for sale.

13.28 Provincial and municipal health inspection programs have focussed on the food service industry — restaurants and caterers — and the food retail industry, including grocery stores, butcher shops and bakeries. Provinces are also responsible for inspecting dairies and meat slaughter and processing operations where products are traded only within the province. In some cases, Agriculture and

Exhibit 13.4

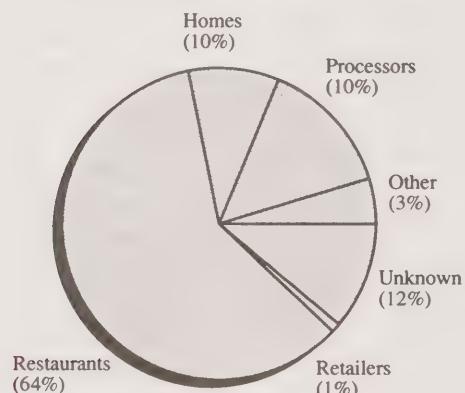
Sources of Food-Borne Illnesses (average number of cases)

Federal food inspection resources are focussed on food processors, where 10 percent of all food-borne illnesses originate.

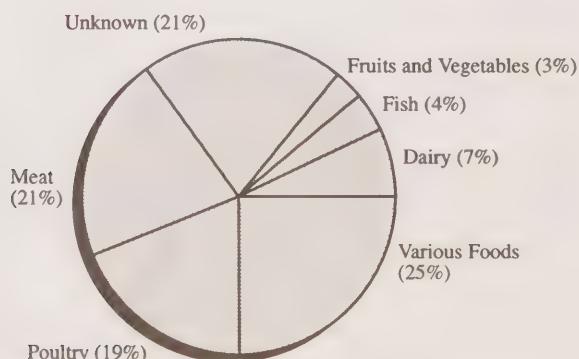
Source: Health Canada

Meat and poultry products are associated with 40 percent of food-borne illnesses. This is primarily due to improper preparation by the consumer.

Sites Where Food Was Mishandled (1983-1987)



Food Types Associated with Food-Borne Illnesses (1975-1987)



Source: Health Canada

Agri-Food Canada inspects provincially registered meat slaughter and processing plants under an agreement with the provinces — Manitoba, Saskatchewan and British Columbia are examples.

The 1986 federal food safety reforms

13.29 In 1985, the Task Force on Program Review (Nielsen Task Force) examined federal food inspection and regulatory programs. Following the review, the government reaffirmed the absolute primacy of the Minister of Health and the *Food and Drugs Act* in all matters related to food health, safety and nutrition. It also adopted several changes proposed by the Task Force to improve federal food inspection activities:

- amend federal regulations to eliminate any inconsistencies or contradictions;
- encourage the establishment of uniform health and safety standards for food-processing establishments at the federal and provincial levels;
- co-ordinate federal inspection activities in registered plants and for imported foods;
- exchange information among federal departments and provide for the periodic audit of the inspection process by Health Canada; and
- clarify the accountability for, and coverage by, food inspection in food-processing plants not registered with the federal government.

13.30 In summary, the government directed the ministers of Health, Agriculture and Agri-Food, Fisheries and Oceans and Industry (then Consumer and Corporate Affairs) to pursue a more integrated approach to federal and provincial food regulation and inspection activities and to improve their co-ordination. It also directed that an interdepartmental food regulation committee be established, chaired by the Deputy Minister of Health and including the deputy ministers of Agriculture and Agri-Food, Fisheries and Oceans and Industry. That committee — the

In 1985, the Nielsen Task Force examined federal food inspection and regulatory programs.

FOOD AND DRUGS ACT		
Covers all food imported or sold in Canada		
Consumer Packaging And Labelling Act		
Covers all pre-packaged food products imported or sold in Canada		
Fish Inspection Act	Meat Inspection Act	Canada Agricultural Products Act
Covers fish and fish products marketed in import, export and interprovincial trade	Covers meat and meat products marketed in import, export and interprovincial trade	Covers most dairy, egg, fruit, vegetable, maple and honey products marketed in import, export and interprovincial trade

Exhibit 13.5

Federal Food Legislation

The 1986 government directive emphasized the importance of increased co-operation and co-ordination among departments in carrying out activities related to food safety.

Interdepartmental Committee on Food Regulation — was instructed to plan and co-ordinate the implementation of the government directive.

13.31 A more complete chronology of recent food safety events is presented in Exhibit 13.6

Audit Objectives and Scope

13.32 The objectives of our audit were to determine:

- whether reasonable progress has been made in implementing the government's plan for food safety; and
- what steps should be taken to further the economical, efficient and effective discharge of federal food safety responsibilities.

13.33 The audit examined federal management of the food safety system. It was not designed to reach any conclusions on the safety of Canada's food supply.

13.34 The scope of the audit included the five federal departments directly involved in food safety activities (see Exhibit 13.1). Other federal activities, such as Environment Canada's role in the molluscan shellfish program and the animal health and feed programs of Agriculture and Agri-Food Canada, also contribute indirectly to the safety of the food supply. As the focus of our audit was on the safety of food products, these indirect activities were excluded from our scope.

13.35 Chapter 13 of our 1993 Report described the changes resulting from the Pesticides Registration Review launched in 1989 by the Minister of Agriculture. Although the regulation and control of pesticides is related to food safety, because of our work last year we did not undertake additional work in that area.

13.36 The planning phase of the audit was completed in August 1992. At the request of the Interdepartmental Committee on Food Regulation, we delayed the examination phase for one year to give departments time to advance or complete a number of initiatives that were under way. The Committee believed that the audit would be more useful if those initiatives were assessed and further improvements recommended.

13.37 In August 1993, the Auditor General of Canada and the Comptroller General of the United States agreed to undertake concurrent reviews of the collaboration between the food inspection agencies of both countries with respect to controls over food imported from third countries. In particular, the reviews were to assess the exchange of information on imported food products that fail to comply with the food safety standards of either Canada or the United States. A summary of the main findings of that work is presented in paragraphs 13.99 to 13.103 of this chapter, and further details are presented in Appendices 13.1 and 13.2.

Observations and Recommendations

Organization and Responsibility for Federal Food Safety Activities

13.38 In 1985, the Nielsen Task Force concluded that the roles and responsibilities of departments in the federal food safety system needed clarification. Subsequently, the government and the Interdepartmental Committee on Food Regulation clarified and defined roles for each of the departments involved. Implicit in that definition is a model of checks and balances. The role of the Interdepartmental Committee in planning and co-ordinating the federal food safety

Year	Internal Events	External Events
1985	Program Review (Nielsen Task Force) recommended major changes in the federal food safety program.	A major recall of Canadian canned tuna resulted in government review of food inspection mandates and responsibilities.
1986	Government directed departments to change regulations and improve co-ordination among federal departments and between the federal government and the provinces. An interdepartmental committee chaired by the Deputy Minister of Health — Interdepartmental Committee on Food Regulation — was also established.	
1987		An unidentified toxin was found to be responsible for an outbreak of shellfish poisoning. The toxin was later identified and a testing program was initiated to reduce the public health risk associated with the toxin.
1988	Health Canada signed agreements with Agriculture and Agri-Food Canada and Fisheries and Oceans Canada covering safety inspections in registered establishments.	
1988 – 1989	The Interdepartmental Committee on Food Regulation presented two reports to the government outlining areas requiring improvement within the federal food inspection system.	Alleged tampering with grapes imported from Chile caused public concern. The incident resulted in a major product recall.
1990	The Treasury Board approved an increase in annual funding of \$38 million for the four federal departments involved in food inspection activities.	
1993	A reorganization of the federal government transferred the food labelling responsibilities of Consumer and Corporate Affairs Canada to Agriculture and Agri-Food Canada and the retail inspection activities to Industry Canada.	
1994	The federal departments signed a protocol covering the audit of food safety components of Agriculture and Agri-Food Canada and Fisheries and Oceans Canada inspection programs.	
1994	The federal and provincial governments endorsed the development of the Canadian Food Inspection System, which proposes to harmonize food safety and quality standards, and to integrate food inspection responsibilities across levels of government.	

Exhibit 13.6

Chronology of Recent Food Safety Events

The federal legislation governing food inspection (see Exhibit 13.5) has evolved over an 80-year period.

1907 *The Meat and Canned Foods Act (repealed 1985)*

1914 *The Fish Inspection Act*

1920 *The Food and Drugs Act*

1935 *Fruit, Vegetables and Honey Act (repealed 1992)*

1951 *Canada Dairy Products Act (repealed 1983)*

1955 *Canada Agricultural Products Standards Act (repealed 1988)*

1955 *Meat Inspection Act*

1971 *Consumer Packaging and Labelling Act*

1988 *Canada Agricultural Products Act*

Source: Departments of Health, Agriculture and Agri-Food, and Fisheries and Oceans

system is key to the success of the model. However, the vital check in the system is the exercise by Health Canada of its primacy role and responsibilities. It is responsible for setting food safety standards and then checking that federal and provincial inspectors ensure that industry complies with these standards.

13.39 The 1986 government directive emphasized the importance of increased co-operation and co-ordination among departments in carrying out activities related to food safety. To that end, it authorized the establishment of the Interdepartmental Committee on Food Regulation, with a mandate to plan, co-ordinate, evaluate, and promote innovation and efficiency in food inspection, including self-regulation by industry where appropriate. The Committee was also to advise ministers on food regulation and inspection policy and to report periodically to the government.

The Interdepartmental Committee on Food Regulation has not completed its assigned tasks

13.40 The Interdepartmental Committee on Food Regulation delegated many of its responsibilities to three sub-committees; a summary of their activities follows. Our findings concerning the Interdepartmental Committee's progress in the areas of reporting, innovation, efficiency and evaluation are also presented in this chapter.

13.41 The Sub-Committee on Food Regulations was established in 1986 to review regulations and statutes to ensure that terminology was uniform and consistent. The Sub-Committee on Food Inspection, also established in 1986, was to develop and implement strategies to co-ordinate inspection activities among federal departments and with the

provinces and municipalities. In 1990, the Sub-Committee on Communication was created to develop a long-term plan for co-ordinating interdepartmental communications on food safety.

13.42 The Sub-Committee on Food Inspection has been the most active. It has established several working groups to address deficiencies in the interdepartmental exchange of data, and in controls over food imports. Working groups were also established to develop inspection procedures and approaches for assessing industry compliance with the *Food and Drugs Act* and Regulations. In addition, the Sub-Committee was to reduce duplication of inspection activities in federally registered food-processing plants. Although plans have recently been developed or agreements reached in all of these areas, little change in practices has resulted.

13.43 The Sub-Committee on Food Regulations has not met since 1988, and has only partially completed its assigned tasks. The Sub-Committee on Communication has met six times, but has made little progress toward a plan to co-ordinate interdepartmental communications on food safety.

13.44 In addition to the sub-committees, two national co-ordinating committees were established in 1990, one by Health Canada and the other by Agriculture and Agri-Food Canada. The food safety mandates of these committees are virtually identical and their terms of reference overlap in areas such as promotion of uniform food standards, communications between provincial and federal levels of government and liaison with consumers and the food industry. In October 1993, a joint steering committee was established, comprising members of the two national committees, representatives from

Fisheries and Oceans Canada and provincial health inspectors.

13.45 Numerous committees and working groups have been established to increase interdepartmental dialogue and consultation, and to address specific food safety issues. However, over the years, the Interdepartmental Committee on Food Regulation has suffered from a high turnover in membership and an absence of sustained focus. There has also been a lack of resources to support the ongoing operations of the Committee. The Committee has been ineffective at setting an overall agenda for the food safety program and many of the assigned tasks have yet to be completed.

13.46 In 1988 and 1989, the Interdepartmental Committee presented two reports to the government. Both were critical assessments of federal food safety activities. The first report contained a list of "vulnerable areas", including problems in domestically manufactured foods, control of imported foods and the response to food safety problems and emergencies. One of the initiatives of the Committee was the establishment of a national emergency operations system to deal with food safety emergencies, in which Health Canada has the lead role (see Exhibit 13.7). The Interdepartmental Committee on Food Regulation has not evaluated and reported on the effectiveness of this new system in responding to food safety crises.

13.47 The second report set out a plan addressing these and other areas to strengthen the federal food safety system. A key element of the plan was a sizable increase in resources for the four inspection departments. The Treasury Board approved additional annual funding of \$38 million in 1990 (see Exhibit 13.8).

13.48 The Treasury Board requested that the Committee report back in two

years on how the new resources had been used to strengthen the food inspection system. That report was not submitted. In addition, in 1990, the Interdepartmental Committee resolved "that a report should be prepared in about two years to provide Cabinet with information about the utilization of these new resources." That report was not prepared either.

13.49 We requested and received information from the departments involved on their use of the additional resources allocated by the Treasury Board for the food safety programs. Our concern, however, is with the failure of the Interdepartmental Committee on Food Regulation to report to the Treasury Board and the government as intended. In the four years since additional funding was approved, \$150 million has been spent without the stipulated accountability for that spending.

Health Canada has the primary role for food safety

13.50 The food safety provisions of the *Food and Drugs Act* apply to the entire Canadian food processing and distribution sector. To fulfil its obligations under the Act, Health Canada must maintain current and relevant standards to meet Canadian needs, and see that there are reasonable enforcement strategies to safeguard the health and safety of the Canadian public. Those conditions were set out in the 1986 government directive.

13.51 The directive confirmed that the Minister of Health and the provisions of the *Food and Drugs Act* have primacy in all matters relating to food health, safety and nutrition. Health Canada's role in federally registered food-processing establishments was to set food safety standards, and to audit the inspection programs of Agriculture and Agri-Food Canada and Fisheries and Oceans Canada to ensure that inspections were conducted

The Interdepartmental Committee on Food Regulation has suffered from a high turnover in membership and an absence of sustained focus.

The 1986 government directive confirmed that the Minister of Health and the provisions of the *Food and Drugs Act* have primacy in all matters relating to food health, safety and nutrition.

in accordance with those standards. These requirements cover 3,900 federally registered food-processing plants in Canada.

13.52 Also, Agriculture and Agri-Food Canada and Fisheries and Oceans Canada were specifically directed to adopt (by reference) all relevant health and safety regulations pursuant to the *Food and*

Drugs Act, and to eliminate any inconsistencies or contradictions in food safety regulations. That directive was partly met. The regulations to the *Meat Inspection Act* and the *Canada Agricultural Products Act* do refer to the health and safety standards of the *Food and Drugs Act*. The Fisheries Inspection Regulations will be amended when the current regulatory review is completed.

Exhibit 13.7

Emergency Operations

From April through September 1994, Health Canada investigated 117 potential food emergencies and co-ordinated the response to 56 incidents of food-borne illness across the federal and provincial governments.

The Issue:

A federal review in 1988 called for improved co-ordination and management of the government's response to food-borne illnesses and emergencies.

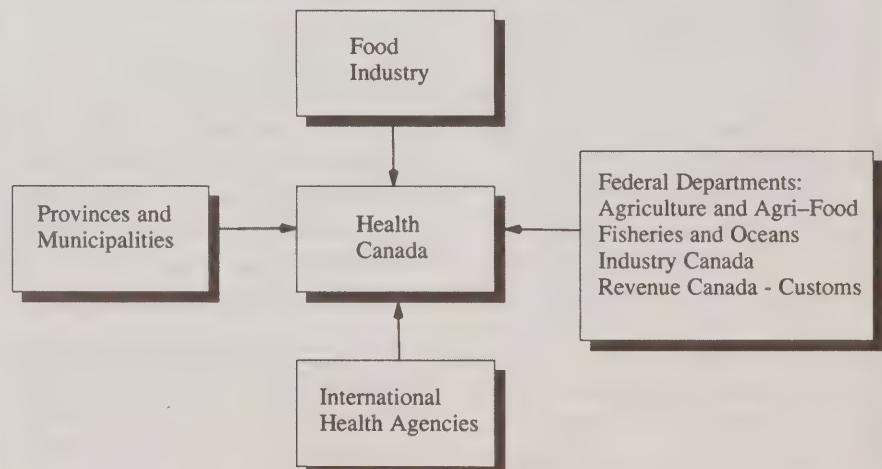
What was done:

Agreements were signed between the federal and provincial governments, recognizing Health Canada's lead role in managing consumer complaints and outbreaks of food-borne illness. Federal and provincial agencies must immediately notify Health Canada of any potential food-borne health hazards.

Health Canada established an Emergency Operations Centre to co-ordinate the federal response to major food-borne illness problems.

Regional co-ordinating committees were established to improve information and communication links between provincial and federal departments and industry.

The National Emergency Operations System



Area for Improvement:

No evaluation process exists to determine whether necessary and proper actions are taken in response to food emergencies.

Federal food safety standards and inspection approaches differ among departments

13.53 Health Canada signed agreements in 1990 with Agriculture and Agri-Food Canada and Fisheries and Oceans Canada to review and endorse the food product sampling plans and testing procedures of those two departments. This was to ensure that the departments were inspecting food-processing plants in accordance with the provisions of the *Food and Drugs Act*. The current practice is that Health Canada informally reviews the sampling plans and testing procedures of Agriculture and Agri-Food Canada and Fisheries and Oceans Canada. Health Canada intends to assess the adequacy of this practice with respect to fulfilling its primacy role.

13.54 In 1991, Health Canada, Agriculture and Agri-Food Canada and Fisheries and Oceans Canada began to develop uniform health and safety inspection standards and procedures. The objectives were to improve efficiency of the inspection system and to ensure fair, equitable treatment of all sectors of industry. Despite efforts by all three departments, the initiative has fallen behind schedule, and uniform procedures have yet to be approved for any food process.

13.55 In February 1992, Fisheries and Oceans Canada introduced a quality management program that resulted in major changes to its inspection procedures (see paragraph 13.79). Agriculture and Agri-Food Canada is also developing new inspection procedures in its industry self-regulation project. Health Canada was consulted in both cases but did not document its review process and its conclusion that these revised inspection procedures satisfy the health and safety requirements of the *Food and Drugs Act*.

Health Canada cannot ensure that the food safety provisions of the *Food and Drugs Act* are applied fully and effectively

13.56 Health Canada is not exercising its responsibility for food safety consistently across the food safety system. The Department does not have all of the information needed to assess whether federal and provincial departments and agencies are verifying compliance with the food safety requirements of the *Food and Drugs Act*, which apply to all food offered for sale in Canada.

13.57 In 1986, the government directed Health Canada to audit the other federal departments' food health and safety inspections of federally registered establishments and food imports, and to exchange information on the results of inspection activities. This was to provide

Health Canada does not have all of the information needed to assess whether federal and provincial departments and agencies are verifying compliance with the food safety requirements of the *Food and Drugs Act*.

	1990–91	1991–92	1992–93	1993–94	Total
Health	23.6	22.1	19.6	20.2	85.5
Agriculture and Agri-Food	6.6	7.5	10.0	9.2	33.3
Fisheries and Oceans	6.1	5.3	4.9	5.0	21.3
Industry	1.7	3.1	3.5	3.6	11.9
TOTAL	38.0	38.0	38.0	38.0	152.0

Exhibit 13.8

Allocation of Additional Funding by Department (\$ millions)

This funding for food safety is included in the totals shown in Exhibit 13.1.

Source: Departments of Health, Agriculture and Agri-Food, Fisheries and Oceans, and Industry

Health Canada with a means to ensure compliance with the provisions of the *Food and Drugs Act*.

13.58 Following the signing of agreements in 1989 with Agriculture and Agri-Food Canada and Fisheries and Oceans Canada, Health Canada began inspecting establishments jointly with the two other departments. These agreements covered information sharing, inspection standards, and roles and responsibilities for inspection of federally registered food-processing establishments. After conducting joint inspections for four years, Health Canada was unable to reach a conclusion on the food-processing industry's compliance with the health and safety provisions of the *Food and Drugs Act*.

13.59 In 1993, the Interdepartmental Committee on Food Regulation directed that departments seek alternatives to joint inspections to avoid duplication of inspection activities. In January 1994, the departments agreed on a new audit role for Health Canada. The inspection programs of Agriculture and Agri-Food Canada and Fisheries and Oceans Canada will be reviewed by Health Canada from the perspective of the health and safety requirements of the *Food and Drugs Act* and Regulations. When that agreement is implemented, the Interdepartmental Committee on Food Regulation will approve the audit plans and review the results of audits, including follow-up actions.

13.60 Health Canada has established food safety committees and administrative agreements with each province to co-ordinate inspection activities and share information. We found, however, that Health Canada is not obtaining complete information from the provinces on the nature, extent, timing and results of food safety inspections they undertake. As a

result, it cannot assess whether provincial and territorial departments and agencies are verifying compliance with health and safety standards equivalent to those of the *Food and Drugs Act*. Health Canada is not obtaining the fullest assurance possible from the provincial inspection activity.

Inspection of Domestically Produced and Imported Food

13.61 Since 1975, Health Canada has compiled information on food-borne diseases occurring in Canada. The latest information published in 1994 summarizes the incidence of food-borne illnesses for 1987. Although information provided in various formats by ten provinces and two territories cannot be summarized easily and quickly, a time lag of seven years is excessive and makes the information much less useful. The information is important in that it provides an ongoing indication of the effectiveness of the food safety system and can assist managers in allocating resources more efficiently. The current situation does not meet these needs.

Responsibility for inspection coverage within some federally registered establishments is unclear

13.62 Health Canada, Agriculture and Agri-Food Canada and Fisheries and Oceans Canada each inspect different sectors of the domestic food-processing industry to monitor compliance with applicable provisions of the *Food and Drugs Act*, as well as with the safety, quality, grade and labelling provisions set out in the *Meat Inspection Act*, *Canada Agricultural Products Act*, *Fish Inspection Act* and *Consumer Packaging and Labelling Act*. The level of inspection activity by each federal department is shown in Exhibit 13.9.

13.63 The food safety provisions of the *Food and Drugs Act* apply to all food, whether domestically produced or imported for sale in Canada. However, the regulatory requirements of the other federal statutes, with the exception of the *Consumer Packaging and Labelling Act*, are based on both food safety and trade considerations. Establishments must register with the federal government if they process food for interprovincial or international trade. There are 2,600 food-processing establishments registered under the *Meat Inspection Act* and *Canada Agricultural Products Act*, and 1,300 establishments registered under the *Fish Inspection Act*. In the dairy, fruit and vegetable products sector, processing establishments that trade interprovincially or internationally must register under the *Canada Agricultural Products Act* only if they produce products listed under that statute; that is, products for which the Act sets out standards of quality and composition. Exhibit 13.10 depicts the

registration requirements, responsibility for inspection and other related factors.

13.64 The *Consumer Packaging and Labelling Act* applies to all food products packaged for direct sale to the consumer in Canada. The *Meat Inspection Act*, *Fish Inspection Act* and *Canada Agricultural Products Act* also apply to food imported into Canada. Food-processing establishments that either produce other types of products or sell only within one province are not required to obtain federal registration. Health Canada inspects 4,500 of the food-processing establishments that are not registered under the trade-based federal legislation.

13.65 We found that the responsibility for inspection coverage of a number of food products in plants registered by Agriculture and Agri-Food Canada, including many products that carry a high health risk, was not clear. In 1988, Health Canada agreed that its safety inspections in registered establishments would be

Exhibit 13.9

Federal Inspection of Food Processing Establishments (1993-94)

A total of 3,914 food processing plants are federally registered by Fisheries and Oceans Canada and Agriculture and Agri-Food Canada. They are inspected for compliance with federal safety and quality requirements.

Health Canada inspects plants not required to be federally registered. These inspections assess compliance with federal safety requirements only.

Source: Departments of Health, Agriculture and Agri-Food, and Fisheries and Oceans

Federal Departments	Number of Plants	Number of Inspections	Number of Plant Inspectors
HEALTH			114
– all commodities	4,540	1,146	
FISHERIES AND OCEANS			300
– fish and fish products	1,272	3,107	
AGRICULTURE AND AGRI-FOOD			1,711
– meat and poultry	589	5,028*	
– dairy	274	251	
– processed eggs	20	582	
– shell eggs	421	3,848	
– processed fruits and vegetables	268	247	
– maple and honey	1,070	372	
TOTAL	8,454	14,581	2,125

* This does not include the continuous inspection of meat and poultry processing operations.

conducted by the registering federal department. But, under the *Canada Agricultural Products Act*, Agriculture and Agri-Food Canada inspects the processing of only those products for which it maintains quality or grade standards.

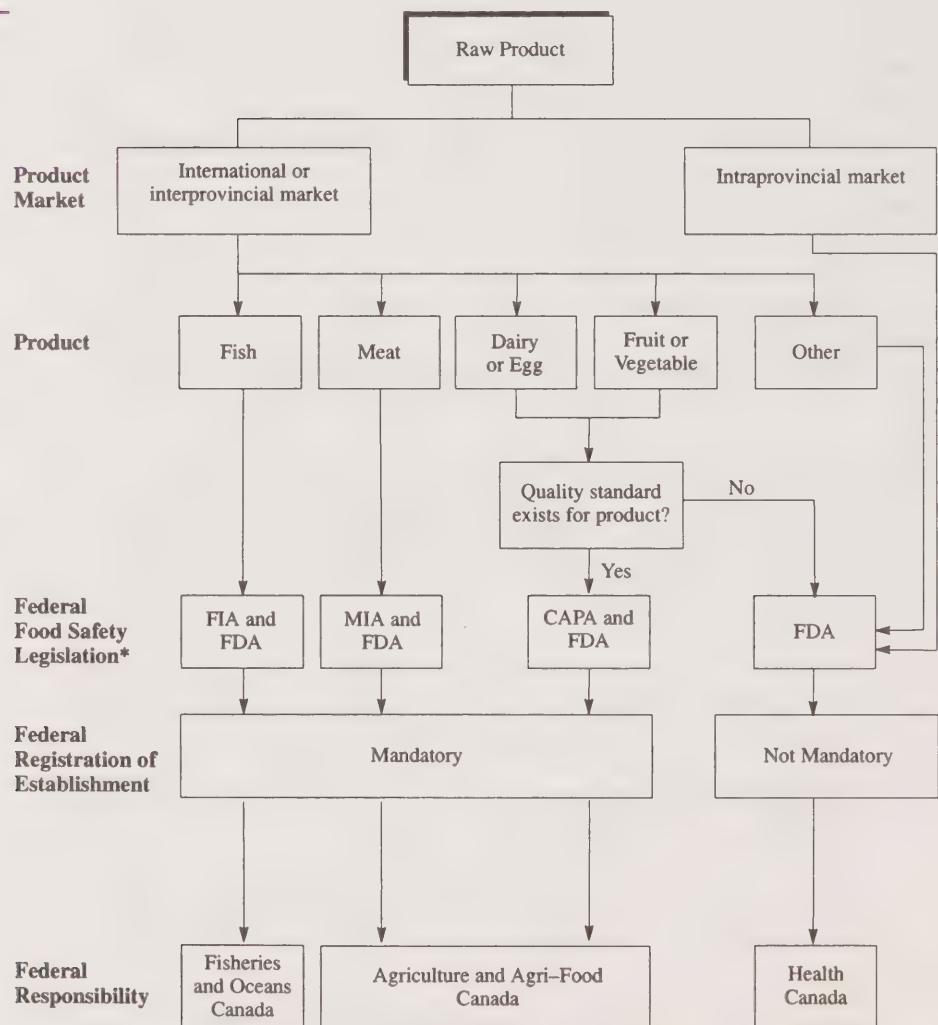
13.66 If a registered plant processes food products for which no grade standards exist, such as chocolate, baby cereal and fruit drinks, those product lines

may not be fully inspected for compliance with federal food safety standards by either Health Canada or Agriculture and Agri-Food Canada. For example, in Ontario, more than one half of the food production in 37 federally registered establishments is not subject to federal quality and grade standards. These processes may not be fully inspected, even though many of them are classified as posing a high risk to human health.

Exhibit 13.10

Federal Food Safety System for the Inspection of Domestic Production

Registering departments also inspect food product labels to ensure compliance with the economic fraud provisions of the Consumer Packaging and Labelling Act and Food and Drugs Act. Agriculture and Agri-Food Canada now conducts these inspections in non-registered establishments.



Source: Departments of Health, Agriculture and Agri-Food, and Fisheries and Oceans

*The scope of the federal food safety legislation is described in Exhibit 13.5.

Resources for inspection of food-processing establishments are allocated on the basis of safety and trade requirements

13.67 To ensure the efficient use of food safety inspection resources, delivery of the federal food safety programs needs to be based on an assessment of risk to human health. This assessment includes the potential for contamination associated with the food product (example: pathogenic micro-organisms and chemical residues), the processing operation (example: canning, freezing, cooking) and the plants' quality control procedures and history of compliance with regulatory requirements.

13.68 Federal inspection programs are based on the requirements set out in the statutes described in the preceding paragraphs. Inspection resources are allocated on the basis of regulatory requirements that cover safety, trade and grading. Health Canada's plant inspection resources are all allocated to the assessment of compliance with safety requirements. Agriculture and Agri-Food Canada and Fisheries and Oceans Canada allocate plant inspection resources on the basis of both safety and trade requirements. We were not able to separate total plant inspection resources

into their food safety and trade components.

13.69 In 1993, the Interdepartmental Sub-Committee on Food Inspection developed a ranking of food processes according to their potential risk to human health (see Exhibit 13.11). Comparing the allocation of total domestic inspection resources to these risk categories, we found significant variations among the three departments. To a large extent, these variations result from the trade requirements of foreign country export markets rather than from safety requirements (see Exhibit 13.12).

13.70 For example, meat slaughter plants are classified as low risk, because the bacterial contamination that may be carried by raw meat is presumed to be eliminated by further preparation and cooking by the consumer. However, Agriculture and Agri-Food Canada allocates 60 percent of its total domestic inspection resources to meat and poultry slaughter plants. Many of those inspection activities are conducted to ensure compliance with requirements of our meat export markets. For example, ante- and post-mortem organoleptic (sensory) examinations are made of every animal destined for slaughter, under the supervision of a veterinarian. This is a mandatory export requirement of most

We were not able to separate total plant inspection resources into their food safety and trade components.

High Risk ← → Low Risk

Category 1	Category 2	Category 3	Category 4
Cheese Infant formula Low-acid canned food Smoked fish products Cooked, cured meats	Peanut butter Bottled water Meal replacements Processed cheese Infant cereals	Butter Jams, jellies Eggs in shell Puddings Cake mixes	Honey Vegetables and vegetable juices Raw meat and poultry Fresh/frozen fish products Fats and oils

Exhibit 13.11

Examples of Foods in Health Hazard Risk Categories

The categories represent the health risk associated with food products as a result of processing.

Category 1 is the most risky.

Source: Interdepartmental Sub-Committee on Food Inspection

The efficiency, cost-effectiveness and scientific validity of the sensory method of inspection have been questioned since the early 1980s.

foreign countries, even though the efficiency, cost-effectiveness and scientific validity of the sensory method of inspection for detecting risks to human health have been questioned since the early 1980s. Many of the diseases that it was designed to detect have been eradicated, and many invisible threats to human health, such as salmonella, E-Coli and drug residues, cannot be detected and controlled by such an inspection.

13.71 In contrast to the meat slaughter process, the canning of low-acid foods poses a high risk to human health if it is not done correctly. We found that the frequency of inspection for this high-risk process varied significantly among federal inspection programs, in part due to export requirements. Health Canada requires inspections of low-acid canneries once every 18 months to assess compliance with health and safety standards.

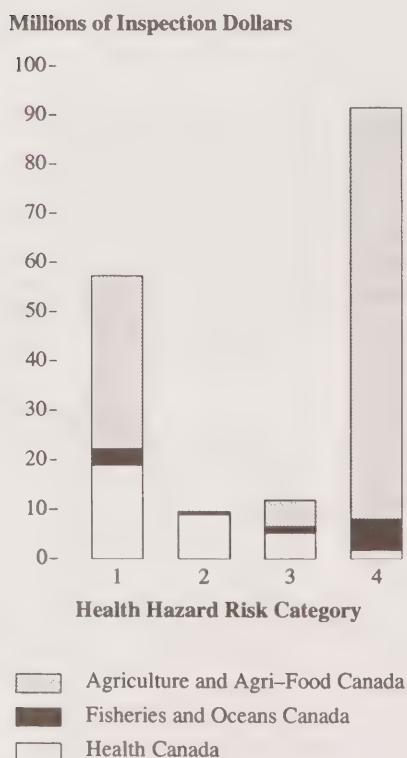
Agriculture and Agri-Food Canada, which enforces a trade and safety mandate, requires continuous inspection — an inspector present in the plant at all times during the process — of low-acid canned meat products. However, it requires only two inspections annually for low-acid canned vegetable products. Fisheries and Oceans Canada also enforces a trade and safety mandate and requires its registered low-acid canneries to be inspected at least every two months.

13.72 The nature and frequency of plant inspections are influenced by both safety and trade considerations and available resources. Inspection activities undertaken to ensure compliance with safety requirements of the *Food and Drugs Act* need to be uniformly based on the risk to human health posed by the processes involved. This has not yet been achieved.

Exhibit 13.12

Federal Inspection Resources by Health Hazard Risk Category (1993-94)

In low-risk Category 4, Agriculture and Agri-Food Canada spent \$73 million on the inspection of meat slaughter plants, largely to ensure compliance with international trade requirements. The Fisheries and Oceans inspection program also spends a large portion of its inspection resources on low-risk plants, for the same reason.



Source: Departments of Health, Agriculture and Agri-Food and Fisheries and Oceans

Targets for inspection frequency are not being met

13.73 Although the four categories of risk applied to food-processing operations have been accepted by all departments, there is no overall federal approach to the management of food safety risks. The departments have defined different targets for inspection frequency in all of their inspection programs.

13.74 Health Canada increased its inspection activities over the last three years in plants that are not registered federally. However, we found that 35 percent of the 1,400 plants that Health Canada classifies as high risk were not inspected within the planned period of 18 months. For example, although Health Canada considers nut processing to be of high risk, we found that it has conducted only a quarter of the required inspections of nut processors over the last three years.

13.75 Fisheries and Oceans Canada bases its level of fish plant inspection on the compliance history of the individual plant. The seasonal nature of the fish industry also influences the level of inspection, as plants are inspected only while they are in operation. We found that fish canneries receive less than half the prescribed number of inspections during seasonal operations. Fisheries and Oceans Canada recently implemented a system to link plant operating days to inspection requirements.

13.76 Agriculture and Agri-Food Canada delivers separate inspection programs for meat, dairy, and processed fruit and vegetable products. The meat slaughter and processing industry receives a high level of inspection coverage, with continuous inspection required for slaughter and most meat processing. In addition, meat slaughter and processing plants are inspected monthly by a regional inspector, and at least once a year by a national inspector. We found that monthly inspections of plants by regional officers were conducted only 70 percent of the time in 1992-93. Agriculture and Agri-Food Canada requires annual in-depth inspections of its registered dairy plants, semi-annual inspections for low-acid fruit and vegetable canneries, and annual inspections of other fruit and vegetable processors. These inspection targets for dairy, fruit and vegetable processors were also not met.

Innovation and efficiency in food inspection vary among departments

13.77 In 1986, the government charged the Interdepartmental Committee on Food Regulation with responsibility for promoting innovation and efficiency in food inspection, including greater self-regulation by industry where appropriate. In February 1994, the

Interdepartmental Sub-Committee on Food Inspection initiated a study to rationalize the federal food safety laboratory capacity. The study will analyze testing methods, identify overlaps, gaps and duplications in testing programs, identify work-sharing opportunities, and rationalize services, taking into account the potential for cost recovery (see Exhibit 13.13).

13.78 One innovation in food safety inspection now being adopted in Canada and many other countries is the Hazard Analysis and Critical Control Points (HACCP) system. This system recognizes the vital role and responsibility of industry in controlling the safety and quality of food products. HACCP has been endorsed by the CODEX Alimentarius Commission, a United Nations agency that sets food safety standards. This preventative system, which is managed by the processing plant, is composed of a risk analysis of the potential hazards posed by different foods, a determination of the critical control points in their processing, the establishment of a program to monitor and control those points, and a method to recall finished products from the market if it is learned that they are hazardous. Such hazards may be microbiological, chemical, physical or nutritional. This new approach will mean significant changes in current government inspection efforts and resource requirements. The role of government becomes one of setting standards and monitoring the food safety controls of industry.

13.79 Fisheries and Oceans Canada, with the participation of the fish-processing industry, has already developed and implemented a program based on this new inspection model. Since 1992, fish plants and processors have been required to play an active role in ensuring the safety and quality of their

In a system that recognizes the vital role and responsibility of industry, the role of government becomes one of setting standards and monitoring the food safety controls of industry.

Federal Management of the Food Safety System

Federal Food Safety Testing Laboratories

Exhibit 13.13

The Issue:

Twenty-four federal laboratories and three contract laboratories conduct tests of food products for compliance with federal food safety and quality standards. These laboratories are expensive to build, maintain and operate.

We observed overcapacity of facilities and testing equipment in some areas.

What's New:

A federal laboratory was opened in Dartmouth in 1993, another is under construction in Winnipeg and one is being expanded in Ottawa. The capital cost of these facilities is \$187 million.

Three departments – Health Canada, Agriculture and Agri-Food Canada and Fisheries and Oceans Canada – have individually rationalized their laboratory facilities.

The major laboratories are co-located in major Canadian cities and have similar capabilities.

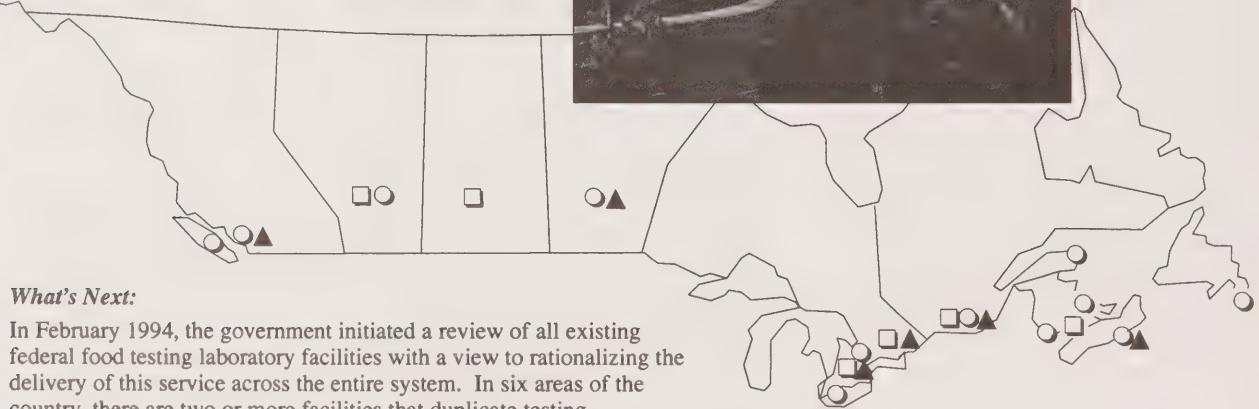
Federal Food Safety Testing Laboratories



This is an artist's depiction of the laboratory under construction in Winnipeg. The facility, and its \$142 million cost, will be shared by Health Canada and Agriculture and Agri-Food Canada.



This new Health Canada facility, located in Dartmouth, Nova Scotia, was constructed at a cost of \$15 million.



	No. of Labs	Testing Capabilities				
		Chemical Hazards	Microbiological Hazards	Food Additives	Marine Toxins	Other Health & Safety
<input type="checkbox"/> Agriculture and Agri-Food Canada	6	3	5	2	N/A	6
<input type="radio"/> Fisheries and Oceans Canada	12	7	12	N/A	10	12
<input type="triangle"/> Health Canada	6	6	6	2	1	6

Source: Departments of Health, Agriculture and Agri-Food, and Fisheries and Oceans

products by identifying and controlling the risks associated with processing. The Department now focusses its inspection efforts on verifying that systems and practices to control product safety are in place.

13.80 Health Canada is in the process of amending the Regulations to the *Food and Drugs Act* so that all food-processing establishments will be required to have systems to identify and control health and safety risks associated with food processing. Agriculture and Agri-Food Canada is also implementing a program of industry self-regulation based on the principles of HACCP. All of these initiatives need to be co-ordinated across the departments so that uniform regulatory and inspection requirements for food safety are applied to processes with similar risks to human health.

A new Canadian Food Inspection System has been proposed

13.81 Inspections of food-processing establishments are conducted by both the federal and provincial governments, under their respective jurisdictions and statutes. The 1986 government directive sought better federal-provincial co-ordination and the establishment of uniform health and safety standards for the food-processing industry across the country whether inspections were conducted by the federal or the provincial government. It proposed consultation with the provinces to encourage them to adopt federal food safety standards. The government also instructed the federal departments to ensure coverage of, and accountability for, establishments that were not registered.

13.82 Health Canada has negotiated agreements with the provinces to improve co-operation in areas where the federal and provincial jurisdictions overlap. The

agreements set out a uniform code of hygiene for food inspection activities, establish procedures for dealing with food-borne illness and co-ordinate inspection activities between Health Canada's inspection program and those of the provincial governments. However, we found that the agreements have not always resulted in improved co-ordination of inspection activities in establishments that are not federally registered.

13.83 Federal-provincial committees were established to improve co-ordination. Health Canada formed the Federal/Provincial/Territorial Committee on Food Safety to co-ordinate inspection activities, standards and the control of problems in the food supply. Agriculture and Agri-Food Canada established a parallel committee in 1990, the Federal/Provincial Agri-Food Inspection Committee, to eliminate interprovincial trade barriers and to encourage provinces to adopt consistent regulations for agricultural products.

13.84 Health Canada has been developing common inspection standards for health and safety with the provinces for three years. In 1992, Agriculture and Agri-Food Canada introduced a project to reduce the overlap of inspection by federal and provincial-municipal agencies through work-sharing agreements and improved co-ordination. Fisheries and Oceans Canada has so far signed agreements with two provinces to co-ordinate their fish inspection activities.

13.85 There are a number of agreements between federal and provincial inspection agencies, but no common federal-provincial health and safety standards for inspection exist. Although progress has been made in addressing inspection duplication and overlap in fish and dairy plants, much remains to be done. Federal and

The current proposal to establish a “Canadian Food Inspection System” recognizes the need for a more integrated national system of food inspection.

provincial safety standards for meat slaughter, for example, continue to differ. The current proposal to establish a “Canadian Food Inspection System” recognizes the need for a more integrated national system of food inspection.

13.86 In July 1993, the ministers of agriculture endorsed the proposal by the Federal/Provincial Agri-Food Inspection Committee to develop a national food inspection policy. The ministers also asked the federal and provincial ministers of health for their participation and commitment. The result was that members of the Federal/Provincial/Territorial Committee on Food Safety, representatives from Fisheries and Oceans Canada and Ontario public health inspectors were added to the steering committee.

13.87 The steering committee prepared a report for the meeting of ministers of agriculture in July 1994. The report noted that Canada’s food inspection system operates in a complex jurisdictional context involving all levels of government and their regulatory organizations.

Among the consequences are the duplication of inspection activities, the layering of costs and the adverse reaction of industry. The report proposes a re-engineered Canadian Food Inspection System. The benefits of such a system include the streamlining of inspection delivery and the harmonization of food safety standards across the federal and provincial governments.

Imported food is receiving increased attention

13.88 Worldwide trade in agriculture and food products is rapidly expanding. Canada’s trade in these products is also expanding, with food exports valued at \$11 billion and imports at \$10 billion in 1993.

13.89 Rules for international trade of agricultural products, and the related safety standards that may be imposed by a country for the protection of its citizens, are contained in a number of international agreements. The General Agreement on Tariffs and Trade requires that countries not discriminate between domestic and imported goods in applying standards and technical regulations, or use such regulations as disguised barriers to trade. The North American Free Trade Agreement further recognizes that Canada may set the level of protection necessary for its consumers, and may even exceed international standards, provided they are based on scientific principles. Canada is encouraged to follow international practice in setting its standards, and to participate in international standardizing bodies, including the CODEX Alimentarius Commission, the World Health Organization, and the Food and Agriculture Organization. The trade agreements recognize that Canada may prohibit the entry and sale of any product that does not meet Canadian safety regulations.

13.90 The safety of imported food is of concern to Canadians (see Exhibit 13.14). Well-publicized scares, such as the Chilean grape incident of 1989 and the more recent “hamburger disease” outbreaks in the United States, have contributed to this concern. Information compiled by Health Canada reveals that in Canada there were 139 recalls of imported food products in 1992–93, representing 63 percent of all food recalls. Given the volume of food imports involved this is not a large number, but it is proportionally much higher than the 25 percent of the value of food consumption represented by imports.

13.91 Concerns over the safety of imported food were identified in a report

prepared by the Interdepartmental Committee on Food Regulation in 1989. As a result, additional funding was approved by the Treasury Board, and import control activities were increased. For example, Agriculture and Agri-Food Canada increased sampling and testing activities for imported foods and developed a foreign country assessment program for dairy, fruit and vegetable products. Health Canada implemented an importer inspection program, and Fisheries and Oceans Canada developed and implemented a computerized import-tracking system and a foreign country accreditation program. In addition, in 1992 and 1993, departments conducted enforcement checks at nine border points. The objective of the checks was to examine all food imports for compliance with Canadian standards.

13.92 Ensuring the safety of imported food presents a greater challenge to regulating agencies than food produced domestically because, in most cases, little is known about the conditions under which imported food is processed. The federal government's approach to regulating imported food is thus varied and complex. Programs include participating in and contributing to the policies and standards of the CODEX Alimentarius Commission.

Departments have not achieved the desired co-ordination of import control activities

13.93 Each department has inspection programs to control the importation and sale of food in Canada. The approaches to inspection and control of imported food

differ among the departments and among the commodity groups.

13.94 In 1986, the government directed departments to improve the co-ordination of import control activities. They were to establish one federal contact for inspection of imports and the process was to be subject to periodic audit by Health Canada. Very little progress has been made in this area. Each department has continued with its own import control program, and the activities of Agriculture and Agri-Food Canada and Fisheries and Oceans Canada have not been subject to periodic audits by Health Canada. The review of food import activities by Health Canada is, however, within the scope of an audit plan recently approved by the Interdepartmental Committee on Food Regulation.

13.95 In Canada, import control activities are directed mainly at product sampling and testing. Health Canada's agreements with Agriculture and Agri-Food Canada and Fisheries and Oceans Canada set out its role in establishing and reviewing risks, priorities and plans for product sampling and testing. However, Health Canada has not assessed and endorsed the other departments' approaches to product sampling and testing. We also found that

Concerns over the safety of imported food were identified in a report prepared by the Interdepartmental Committee on Food Regulation in 1989.

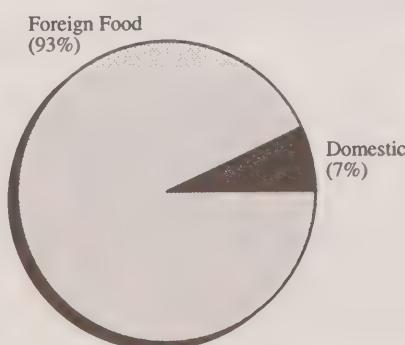


Exhibit 13.14

Survey of Consumers' Attitudes

Are you more concerned about domestic or foreign food?

Source: Consumers' Association of Canada (1990)

product sampling and testing of imported fruits and vegetables is not fully integrated between departments.

13.96 We reviewed the border inspection activities of the federal departments and found several weaknesses. Currently, for most food commodities, there is no inspection capability at ports of entry. Agriculture and Agri-Food Canada plans to have officers in place by the end of 1994 to check documentation and physically verify contents at 32 major points of entry, which account for 80 percent of all food imports. Revenue Canada—Customs is required to verify import documents and notify the responsible federal department. Notification is required in cases where the shipment is not properly documented. The inspecting departments have identified cases where Revenue Canada—Customs did not make the proper referrals. We reviewed the findings of the border enforcement checks undertaken in 1992 and found that 34 percent of the shipments examined did not comply with all import requirements. Most food shipments failed because of improper documentation and labelling, while three

percent represented health and safety violations.

13.97 Fisheries and Oceans Canada has an extensive program for the inspection of fish imports. The Department relies on the importer to notify it of incoming shipments. However, a 1991 internal audit estimated that importers failed to notify the Department 25 percent of the time. The preliminary findings of a recent follow-up audit were that, although non-notification remains a problem, the failure-to-notify rate fell to 11 percent in 1992–93. Fisheries and Oceans Canada is working to further reduce this problem.

13.98 To co-ordinate the inspection of agri-food imports, an interdepartmental working group was created in 1991. The working group proposed an action plan and outlined priorities for consideration, including the development of an integrated program of import control. After that, the working group was largely inactive. In December 1993, the Interdepartmental Sub-Committee on Food Inspection decided that the departments should meet again to discuss a more co-ordinated effort at import control. In July 1994, the working group

At most border crossings like this one, Revenue Canada—Customs must notify the responsible federal department of incoming food shipments (see paragraph 13.96).



became a sub-committee of that committee with a mandate to improve the co-ordination of import control activities.

Improved co-ordination with United States food inspection agencies could lead to better coverage of food imports

13.99 Our audit of food safety included a concurrent review, conducted jointly with the United States General Accounting Office. The Office of the Auditor General and the General Accounting Office in the past have both expressed concern about the safety of foods imported from third countries. In light of increasing food imports, federal budget constraints and recent international trade agreements calling for equivalent food safety standards, we decided to assess the sharing of information between the agencies responsible in the two countries for imported food safety (see Appendices 13.1 and 13.2).

13.100 Specifically, our objectives were to assess:

- whether the countries are sharing, to the extent possible, information on food products that are refused entry because they have been found in violation of health and safety standards; and
- the potential for improving controls over imported food products through collaborative certification and inspection programs and sharing of information on the results of inspections of foreign food plants.

13.101 The United States and Canada have similar systems and standards for ensuring the safety of imported food. In the United States, the Food and Drug Administration is the federal agency that oversees the safety of most domestic and imported food products, including seafood. The United States Department of Agriculture ensures the safety of meat and poultry products.

13.102 The United States and Canada have several arrangements to share information about rejected food shipments from third countries. Those arrangements cover mostly products found in violation of health and safety standards that are subsequently re-exported to or through the United States and Canada. However, the arrangements are informal and are not always followed by Canadian and United States food agencies. More systematic arrangements for information sharing could result in better assurance that unsafe food is not imported to our countries.

13.103 Canada and the United States share little information on the results of foreign plant inspections. As a result, with some foods — for example, meat and canned tuna — both countries inspect many of the same foreign plants while other foreign plants are not inspected by either country. Many of the plants not inspected are involved in high-risk processes, such as low-acid canning.

Improved co-ordination between Canadian and United States food agencies could lead to better inspection coverage of food imports.

Cost Recovery

13.104 The Treasury Board's 1989 User Fee Policy requires that external users pay appropriate charges for both mandatory and optional regulatory services, including those related to health and safety, when direct economic benefits accrue to specific users and other prime beneficiaries. The Treasury Board Secretariat advised the Interdepartmental Committee on Food Regulation in 1989 that the Treasury Board ministers were aware that regulated industries and their consumers benefited from improved marketability, lower risk and increased confidence. They recognized that appropriate charges determined in accordance with Treasury Board's guidelines need not compromise

Improved co-ordination between Canadian and United States food agencies could lead to better inspection coverage of food imports.

health and safety objectives or jeopardize public benefits. This guidance was provided to the Interdepartmental Committee in response to its proposal to restrict cost recovery to product grading and export certification services.

Federal food inspection costs are not recovered in accordance with Treasury Board policy

If the Treasury Board's cost-recovery policy were applied fully, the amount recovered would be up to \$200 million annually.

13.105 Over the last five years, there has been little recovery of inspection costs, even those not associated directly with safety objectives. Of the \$226 million annual cost of federal food inspection activities, only \$11 million — related mainly to product grading and export certification services — was recovered in 1993–94. If the Treasury Board's cost-recovery policy were applied fully, it would allow for the recovery of up to \$200 million annually.

13.106 We examined and reported on inspection cost recovery at Fisheries and Oceans Canada in 1988 and at Agriculture and Agri-Food Canada in 1991. In each case, we found that cost-recovery opportunities had not been maximized. During this audit, we re-examined cost-recovery practices for all federal food inspection activities. We found the situation largely unchanged. We also found significant inconsistencies in cost-recovery practices of inspection programs across departments, and within the inspection programs of Agriculture and Agri-Food Canada.

13.107 Our 1988 audit of Fisheries and Oceans Canada found that fees sufficient to recover direct costs had been introduced in 1985 in some parts of the import inspection program. We identified a number of additional opportunities for cost recovery in the domestic plant inspection program, and the Department planned to initiate new cost-recovery

measures by 1991. In a follow-up audit that year we noted that, apart from raising import inspection fees, the Department had introduced no new cost-recovery measures. Our current findings show no change.

13.108 Our 1991 audit of cost-recovery practices at Agriculture and Agri-Food Canada revealed that the Department did not have a comprehensive, department-wide system for management of non-tax revenue. A recent study identified the costs of inspection activities that fall within the federal cost-recovery policy to be \$60 million annually. The amounts involved are large, as are the potential savings to the government. Individual departments have reviewed their cost-recovery practices and some plans to increase the level of recovery are being developed. All departments must determine which inspection activities are subject to cost recovery and then ensure that the recovery practice is applied consistently across the system.

Reporting to Parliament on Food Safety Activities and Results

13.109 For the period 1989–90 to 1994–95, we reviewed the Estimates Part III of all the departments involved in the management of the federal food safety system. We expected to find information on food safety activities in all of the documents, including information on performance and results achieved. And, given Health Canada's primacy role, we expected that its Part III would be the one to provide a comprehensive overview of the system.

13.110 The 1986 government directive mandated the Interdepartmental Committee on Food Regulation to evaluate the effects of changes proposed by the government. The Food Inspection Sub-Committee of the Interdepartmental

Committee also was required to “develop schedules for regular program review and evaluation to identify emerging trends and issues and to facilitate individual planning in each of the respective departments.”

13.111 The new Treasury Board Manual on Review, Audit and Evaluation states, “It is government policy that departments conduct evaluations, audits and other reviews to assess the performance of their policies, programs and operations.” The Review Policy Guidelines put a particular emphasis on the need to conduct multidepartment reviews of a policy or a program that is managed by several departments and that could involve other levels of government, in particular the provinces (as is the case with the Canadian food safety system).

13.112 In short, the departments and the Interdepartmental Committee on Food Regulation are individually and collectively responsible for ensuring that the federal food safety system is evaluated periodically and that the findings are reported to Parliament.

Information in the Estimates Part III is incomplete

13.113 We found that the Estimates Part III for Health Canada did not describe the federal food safety system. For example, the objectives of the system were not presented and, although the major departments involved were named, there was no explanation of their individual roles. Nor did Health Canada’s Part III provide a summary of the resources required and used by the food safety system overall. In the other departments, we found that Part IIIs provided information on their food safety activities, and occasionally made reference to the food safety initiatives of other departments.

13.114 We concluded that the Estimates Part III do not provide members of Parliament with an overall understanding of federal food safety activities and the results achieved.

13.115 We believe that the greatest deficiency relates to the lack of information on the effectiveness of the federal food safety system — the degree to which the departments are achieving their objective of ensuring a safe food supply. There is little measurement of overall performance and reporting of results in the federal food safety system, despite the clear need for such information.

The overall effectiveness of federal food safety activities is unknown

13.116 The most recent program evaluations of the federal food safety system were conducted by the responsible departments and the findings were reported in 1987. Agriculture and Agri-Food Canada, Health Canada and Industry Canada (then Consumer and Corporate Affairs Canada) each looked at the elements of the food safety system that fell under its control.

13.117 However, those evaluations were completed before the changes brought about by the 1986 government directive and, most important, they did not address issues pertaining to the food safety system as a whole.

13.118 Eight years have passed since the departments were directed to implement changes to the federal food safety system. During that time, additional resources have been obtained and many changes have been made. However, the absence of evaluation activity means that little is known about the effectiveness of the system and its component parts, or the impact of the changes. A significant and serious gap exists in the performance

There is little measurement of overall performance and reporting of results in the federal food safety system.

We found that the Estimates Part III for Health Canada did not describe the federal food safety system.

information available on the program and in the accountability that can be exacted.

13.119 We conducted a search of related literature to ascertain if it would be reasonable and appropriate to examine the effects of the food safety program. We concluded that a multidepartment review can answer questions such as: Are we doing the right things? Are the programs being managed and co-ordinated in the best possible way? Would a given segment of the population be better served by a different mix of programs? We identified a number of specific effects that could be examined by such a program evaluation. Those effects are listed in Exhibit 13.15.

13.120 Three chapters in the 1993 Report of the Auditor General stressed the importance of program evaluation findings as a necessary tool for managing results and for accountability. Without such information on food safety programs, program managers, taxpayers and Parliament cannot know whether these programs are achieving what was intended

and what, if anything, has changed as a result of implementing them.

Recommendations to the Interdepartmental Committee on Food Regulation

13.121 The Interdepartmental Committee on Food Regulation has been responsible for planning and co-ordinating the federal food safety system since 1986. While this role is necessary for the cost-effective operation of the system, the clear separation of individual departments' responsibilities is also critical to the system's underlying model of checks and balances.

13.122 We had intended to complete and report this audit in 1992, but the Interdepartmental Committee asked for a delay so that departments could advance or complete a number of initiatives that were under way. Although progress had been slow up to that point, we found that considerable headway was made during the two-year period.

13.123 Nevertheless, there are a number of important steps that the Interdepartmental Committee on Food

Exhibit 13.15

Measurable Effects of the Food Safety System That Could Be Examined by a Program Evaluation Study

Potential Positive Effects

- Reduced incidence of food-borne illness. Measurable benefits could include reductions in
 - numbers of human deaths and illnesses
 - investigation, health care and lost productivity costs
 - industry costs associated with lost sales, product recalls, legal costs/ settlements
 - individual costs, including lost leisure time, pain and suffering
- Enhanced marketability of Canadian agri-food products

Potential Negative Effects

- Plants shut down needlessly, thus damaging the industry and local economies.
- Unfair burden on Canadian firms who are competing with foreign firms on domestic and foreign markets.
- Technical barriers to international trade (as defined in NAFTA and GATT) and irritants to trade.

Regulation must take or accelerate to ensure that the federal food safety system operates as efficiently as possible across the country, and is effective in keeping Canada's food supply safe.

An agenda for the Interdepartmental Committee on Food Regulation

13.124 The Interdepartmental Committee on Food Regulation should focus on completing its assigned tasks and on specifying the results that should be achieved in managing the federal food safety system. As a first step, the Interdepartmental Committee should re-examine its own role and structure to ensure that it has the authority, membership, resources and commitment necessary to carry out its ongoing responsibilities and accomplish its agenda for change.

13.125 The Interdepartmental Committee should make certain that individual departments have appropriate action planned or under way to correct deficiencies, capture economies and efficiencies, and confirm that the checks and balances on which the federal food safety system relies are in place and operating. These actions should address:

1. The need for Health Canada to independently and objectively review the food safety inspection-related activities of federal departments concerning imported and domestically produced foods for sale in Canada, and of provincial departments concerning the inspection of non-registered food-processing plants. Specific attention is required to make food safety standards and inspection approaches consistent; to eliminate gaps in inspection coverage of federally registered plants and imports; and to obtain information from the provinces on their inspection activity.
2. The identification of federal food safety inspection resources separately from those that are related to quality and trade, and the uniform allocation of these food safety resources across the system on the basis of risk to human health. This will require that health hazard risk categories and uniform levels of inspection coverage are agreed upon, and that the optimum inspection frequencies necessary to control the risk are established and met.
3. Co-ordination with United States food inspection agencies in areas of information exchange on unsafe food products from third countries and on inspection results for foreign plants. Improvements in these areas should contribute to greater efficiency and better coverage of food imports.
4. The pursuit of innovation and efficiencies in food safety activities; in particular, concerning the operation of laboratories and the regulation and audit of HACCP-based systems. This should include the co-ordination of regulatory changes and inspection initiatives so that uniform requirements are applied to industry processes and imports posing similar risks to human health.
5. The consistent and equitable application of the Treasury Board's user fee policy by all federal inspection departments to the processing and distribution sectors of the Canadian food industry.
6. The need for greater accountability in the management of the federal

There are a number of important steps that the Interdepartmental Committee on Food Regulation must take or accelerate to ensure that the federal food safety system operates as efficiently as possible across the country and is effective in keeping Canada's food supply safe.

food safety system. Several actions should be taken:

- report to the Treasury Board on the use of supplementary funding received since 1990–91 and the results that can be attributed to this spending. The effectiveness of the national emergency operations system should be evaluated and reported as part of this undertaking;
- measure the effectiveness of the Canadian food safety system by conducting a program evaluation study in co-operation with the provinces, and by improving the timeliness and availability of annual data on food-borne illnesses; and
- improve reporting to Parliament in the Estimates Part III of the federal food safety system, including a description of the system, a summary of the resources involved and information on overall performance and results. Information on the effectiveness of the food safety system, such as trend data on food-borne illnesses and program evaluation findings, should be included.

Committee's response: As the Auditor General stated in the Introduction to this chapter, Canada is recognized both at home and abroad as having a food supply that is abundant, safe, nutritious and of high quality. The significant initiatives in progress to maintain the safety of the food supply have also been acknowledged by the Auditor General. The Interdepartmental Committee on Food Regulation welcomes the recommendations of the Auditor General on additional steps that can be taken to increase the

efficiency of the federal food safety system.

The environment in which the federal food safety system functions has changed considerably since the Interdepartmental Committee on Food Regulation was established in 1986. Budgetary constraints at all levels of government, the highly competitive international marketplace and the rapid expansion of worldwide trade in food products are among the challenges being faced. The Committee agrees with the Auditor General on the need to re-examine all aspects of its activities to ensure that the management of the food safety system and accountability to both Parliament and Treasury Board are enhanced.

The Interdepartmental Committee on Food Regulation undertakes to incorporate the agenda outlined by the Auditor General in this process. In particular, priority will be given to greater integration of federal and provincial inspection programs through the establishment of the "Canadian Food Inspection System", audit of the food inspection system by Health Canada, accelerated and consistent implementation by departments of Treasury Board's User Pay Policy, and increased co-ordination of import surveillance among departments and with the United States. The Committee will also consider means to more broadly report to Parliament in the Estimates Part III. With these actions, the Interdepartmental Committee on Food Regulation is confident that Canadians can continue to be assured that the food supply is safe and nutritious and that the federal food safety system is functioning in an efficient and effective manner.

Appendix 13.1

Federal Management of the Food Safety System Concurrent Review of Third-Country Food Imports

Purpose

Canada and the United States import a significant portion of their food supply. In addition to their reciprocal trade in food products, each imports an increasing quantity of food from third countries.

Both countries share a common approach to controlling imported food, through similar food safety standards and import inspection programs. The two countries recently signed international trade agreements calling for equivalent food safety standards to eliminate barriers to trade and to promote fair competition.

The volume of imported food and the budget constraints faced by the agencies responsible for controlling imported foods present a challenge to federal agencies in both countries. For this reason, and because of the potential health risks posed by imported foods and the importance of monitoring these risks, the Office of the Auditor General of Canada and the United States General Accounting Office undertook concurrent reviews of the food import control programs of Canadian and United States agencies.

The objectives of these reviews were to assess:

- whether the countries are sharing, to the extent possible, information on food products that are refused entry because they have been found in violation of health and safety standards; and
- the potential for improving controls over imported food products through collaborative certification and inspection programs and the sharing of information on the results of inspections of foreign food plants.

Results in Brief

Canada and the United States have several arrangements to share information about imported food products found to be in violation of health and safety standards. These arrangements cover imported food shipments from third countries that are being re-exported to or through the United States and Canada. The arrangements, however, are primarily informal and are seldom nation-wide in scope. More comprehensive and systematic information-sharing arrangements between Canadian and United States agencies could result in increased assurance concerning the safety of food imported to Canada.

Canada and the United States share little information on the results of foreign plant inspections. In the cases of meat, shrimp and tuna, both countries inspect many of the same foreign plants while other foreign plants are not regularly inspected by either country. Improved sharing of information between Canadian and United States food agencies could lead to greater efficiency and better inspection coverage of food imports.

Background

Three Canadian and two United States federal agencies have direct responsibility for monitoring the compliance of food imports with federal safety requirements. These

agencies exchange information on inspections that disclose violations of trade and safety standards (see Exhibit App. 13.1).

Health Canada establishes standards for food safety in Canada and has overall responsibility for ensuring that all food sold in Canada meets health and safety standards. Its inspection activities include inspecting importers' facilities and product sampling and testing of imported commodities. Inspection responsibility is shared with Agriculture and Agri-Food Canada and Fisheries and Oceans Canada. Agriculture and Agri-Food Canada is responsible for the inspection of meat and poultry, eggs and egg products, dairy, fruit and vegetable products. It controls imports through product sampling and testing at ports of entry and inspecting importer facilities and foreign meat plant operations. Similarly, Fisheries and Oceans Canada is responsible for the inspection of fish products; it also has a product sampling and testing program and inspects shrimp- and tuna-processing establishments overseas.

In the United States, the Food and Drug Administration of the Department of Health and Human Services is the federal agency responsible for overseeing the safety of most domestic and imported food products, including seafood. The United States Department of Agriculture is responsible for ensuring the safety of meat and poultry products. Both agencies have foreign plant inspection programs.

When a third country requests approval of its meat inspection system, Agriculture and Agri-Food Canada reviews all relevant legislation and related technical information on that country. If the country has legislation equivalent to Canada's, a visit is made to the country to study the actual implementation of the legislation in food-processing

Exhibit App. 13.1

Information-Sharing Arrangements: Canadian and United States Food Inspection Agencies

Arrangements	Scope	Comment
Health Canada and United States Food and Drug Administration	<ul style="list-style-type: none">Rejected Food being re-exported to country of originPotential food-related public health emergencies	<ul style="list-style-type: none">Regional agreementNational agreement
Fisheries and Oceans Canada and United States Food and Drug Administration	<ul style="list-style-type: none">Rejected Food being re-exported to country of originPilot project covering electronic data exchange	<ul style="list-style-type: none">Regional agreements (two regions)Pacific Region
Agriculture and Agri-Food Canada and United States Department of Agriculture	<ul style="list-style-type: none">Rejected meat shipments being re-exported to country of origin	<ul style="list-style-type: none">National agreement

Source: Departments of Health, Agriculture and Agri-Food, and Fisheries and Oceans

establishments. Based on satisfactory findings during the visit, establishments wishing to export to Canada are approved.

Very similar programs exist in the United States. For example, the United States Department of Agriculture inspects all foreign meat and poultry processing plants exporting to the United States, and the United States Food and Drug Administration inspects facilities that process low-acid canned food and seafood.

Agriculture and Agri-Food Canada currently covers low-acid canned meat products under its foreign meat hygiene program. It is developing a foreign country assessment program to also review the inspection systems of countries exporting dairy, fruit and vegetable products that may include the inspection of establishments exporting low-acid canned food into Canada.

Principal Findings

Canadian and United States food inspection agencies share information to prevent unsafe food from entering either country

Agriculture and Agri-Food Canada and the United States Department of Agriculture have agreed to exchange information on meat and poultry shipments from third countries that were refused entry and are being re-exported to or through the United States and Canada. The purpose of this information exchange is to control the refused shipments in transit. Agriculture and Agri-Food Canada does not have a similar arrangement covering other food products.

In 1993, Agriculture and Agri-Food Canada refused entry for health and safety reasons to 17 meat and poultry shipments from third countries that were then re-exported through the United States to the country of origin. However, we found that the United States Department of Agriculture was notified in only 8 of the 17 cases. The United States General Accounting Office followed up these cases with the United States Department of Agriculture and the results are presented in the General Accounting Office report.

In the same year, Canada was notified by the United States Department of Agriculture of two rejected meat shipments that were re-exported from the United States through Canada to the country of origin. We found that Agriculture and Agri-Food Canada took appropriate action on the two cases.

We also examined the results of arrangements between Fisheries and Oceans Canada and the United States Food and Drug Administration. While there is no agreement between the two agencies at the headquarters level, we found that some regional offices do share information on rejected shipments. For example, since the fall of 1993, Fisheries and Oceans Canada's Pacific region has had direct access to the import control system of the United States Food and Drug Administration's West Coast region. Also, in February 1994 the United States Food and Drug Administration's Northeastern region and Fisheries and Oceans Canada's Central and Arctic region finalized an arrangement of information exchange and notification procedures for rejected fish products.

We followed up on two 1993 cases in which the United States Food and Drug Administration's West Coast region notified Fisheries and Oceans Canada of shipments

rejected for health and safety reasons, which were re-exported through Canada. In both cases, Fisheries and Oceans Canada's Pacific region monitored the shipments appropriately. While information sharing is taking place at the regional level and is generally effective, there is no nation-wide system in place. We were therefore unable to determine the total number of rejected shipments that were re-exported from the United States through Canada to the country of origin.

We also noted that Fisheries and Oceans Canada's inspection manual instructs officers to inform the United States Food and Drug Administration of products being shipped to the United States after having been rejected in Canada for health and safety reasons. In 1993, Fisheries and Oceans Canada notified the United States Food and Drug Administration of 17 of 20 such rejected shipments that were re-exported to or through the United States. Again, the results of the United States General Accounting Office's follow-up are found in its report.

Health Canada and the United States Food and Drug Administration may share information on a regional basis about rejected shipments from third countries. However, there is no record kept of the cases referred between the agencies. Another arrangement between headquarters groups in Washington and Ottawa covers potential food-related public health emergencies of reciprocal concern to each country. Health Canada and the United States Food and Drug Administration are formalizing these bilateral relations; draft letters of agreement were exchanged between the agencies in February 1994.

We concluded that most arrangements for information exchange between the Canadian and United States food agencies are informal and not comprehensive. More comprehensive and systematic arrangements could lead to greater assurance that unsafe food is not entering the commerce of either country.

Canadian and United States agencies inspect many of the same foreign food-processing plants

For certain commodity groups, Canadian and United States food agencies inspect foreign food processors to ensure that they have inspection systems, procedures and practices that are comparable to domestic systems and that meet domestic health and safety standards. Each country has major programs covering meat and fish products and the United States also covers other commodities to a lesser extent.

In 1992, the United States Department of Agriculture reported on a review of the Canadian meat inspection system. It concluded that the Canadian inspection system is equivalent to the United States inspection system. The report also indicated that, like the United States, Canada has a certification program to ensure that a foreign country's inspection system complies with certain requirements before that country can export meat to Canada. Neither country will accept meat products from a country that it has not certified as eligible to export the product.

Given the similarities between the two systems and the overlap in inspection activity, there is potential for improving the coverage of foreign meat-processing establishments through increased sharing of inspection results by Canadian and United States agencies. Such information would enhance their knowledge of foreign food plants and focus attention on establishments with known violations.

Agriculture and Agri-Food Canada's program for foreign meat processors covers 31 countries — 633 establishments — eligible to export to Canada (see Exhibit App. 13.2). The frequency of on-site reviews of foreign establishments is determined by the plant size, the nature and complexity of its operations, volume of exports and record of import inspection findings. On average, the establishments are inspected every three to five years.

Over the last three years, Agriculture and Agri-Food Canada's inspectors visited 12 countries and carried out inspections of 124 food-processing establishments. The average direct cost per inspection was \$1,000. Over the same period, the United States Department of Agriculture inspected 102 of the 124 plants inspected by Agriculture and Agri-Food Canada. The United States Department of Agriculture also inspected 356 of the 560 approved establishments eligible to export to Canada that were not inspected by Agriculture and Agri-Food Canada over the three years.

At present, Agriculture and Agri-Food Canada and the United States Department of Agriculture share little information on the results of foreign plant inspections. The United States Department of Agriculture publishes an annual list of certified foreign plants, which is available to Agriculture and Agri-Food Canada. The list also includes plants decertified during the year but does not indicate whether a plant has ceased export operations to the United States or failed inspection. Agriculture and Agri-Food Canada also compiles this information but does not publish a list or share the information with the United States Department of Agriculture.

In 1988, Fisheries and Oceans Canada implemented a program for certifying offshore shrimp- and tuna-processing establishments. The objectives were to increase confidence in the safety of imported fish products and to minimize the need for extensive sampling in Canada. To this end, memoranda of understanding were reached with three countries: Thailand, Japan and the Philippines.

Under these three agreements a foreign plant may be granted "preferred status" if it adheres to Canadian health and safety standards; it will then be subject to less product sampling and testing in Canada. Processors who wish to obtain this status are inspected by Fisheries and Oceans Canada. Over the last three years, Fisheries and

Country	Number of Establishments	Percentage
Australia	216	34
New Zealand	102	16
Denmark	54	9
Brazil	22	3
France	69	11
Poland	30	5
Uruguay	18	3
Other	122	19
TOTAL	633	100

Exhibit App 13.2

Foreign Meat Slaughter and Processing Establishments Approved for Export to Canada (Excluding United States)

Source: Agriculture and Agri-Food Canada

Oceans Canada inspected 15 such establishments overseas. In 1992–1993, establishments with preferred status processed 70 percent of Canadian canned tuna imports.

Unlike Agriculture and Agri-Food Canada and Fisheries and Oceans Canada, each with a mandate to facilitate international trade, Health Canada does not inspect foreign processing plants. Health Canada's mandate, drawn from the *Food and Drugs Act*, relates to public health and applies to food, either produced domestically or imported, that is presented for sale in Canada.

The foreign inspection program of the United States Food and Drug Administration is more extensive than the Canadian foreign inspection program. It includes, for example, a program for inspecting low-acid canneries processing fruits and vegetables, in addition to fish. In 1993, the United States Food and Drug Administration inspected 52 establishments processing these low-acid canned foods.

We compared the list of establishments inspected by Fisheries and Oceans Canada and the United States Food and Drug Administration over the past three years. Of the 15 plants inspected by Canada, five were also inspected by the United States Food and Drug Administration. In addition, for the same period, the United States Food and Drug Administration inspected 132 seafood plants, many of which also export products to Canada.

We concluded that Canadian and United States agencies share little information on the results of foreign plant inspections. Given the limited resources to conduct foreign plant inspections, increased exchange of information between Canada and the United States could lead to better coverage of offshore establishments.

Recommendations

Subject to any limitations imposed by Canadian and United States statutes, the Interdepartmental Committee on Food Regulation could contribute to greater efficiency and better coverage of food imports by directing federal departments to:

- establish more comprehensive and systematic arrangements for sharing information between Canadian and United States food inspection agencies on unsafe food products from third countries; and
- improve sharing of information between Canadian and United States agencies on the results of foreign plant inspections, and improve co-ordination of foreign plant inspection efforts.

Appendix 13.2

Letter from the Comptroller General of the United States



**The Comptroller General
of the United States**

Washington, D.C. 20548

October 13, 1994

Mr. L. Denis Desautels
Auditor General of Canada
Ottawa, Canada K1A0G6

Dear Mr. Desautels:

We have completed our concurrent review of U.S. and Canadian efforts to coordinate imported food safety activities.

We are finalizing our report to Congress now and plan to include, as an appendix to our report, a copy of the relevant chapter from your annual report. Since a copy of our published report will accompany your report to Parliament, we will send you copies of ours by express mail as soon as it is published.

As we discussed during our meetings in July, this joint effort has been highly beneficial. My team and I have enjoyed working with the Office of Auditor General and welcome similar opportunities in the future.

Sincerely yours,

A handwritten signature in black ink that reads "Charles A. Booshey".

Comptroller General
of the United States

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents

Volume Chapter

1	Introduction
1	Matters of Special Importance and Interest
2	Follow-up of Recommendations in Previous Reports
3	Other Audit Observations
4	Background on the Audit Process
	Appendices
A.	Auditor General Act
B.	Financial Administration Act – Extracts from Part X
C.	Reports of the Standing Committee on Public Accounts to the House of Commons
D.	Report on the Audit of the President of the Treasury Board's Report to Parliament: Tablings in Parliament for Parent Crown Corporations: Annual Reports and Summaries of Corporate Plans and Budgets
E.	Taking Stock of Special Operating Agencies – A Summary of Conclusions of Joint Public and Private Sector Steering Committee
	Studies
2	5 An Innovative Society and the Role of Government
3	6 Study of Key Federal Social Programs
4	7 Information for Parliament: Departmental Reporting on Sectoral Activities and Follow-up of 1992 Chapter on Departmental Reporting
5	8 Information Technology – Reaping the Benefits and Managing the Risks
	Audits
6	9 Science and Technology – Overall Management of Federal Science and Technology Activities
10	Science and Technology – Management of Departmental Science and Technology Activities
11	Science and Technology – The Management of Scientific Personnel in Federal Research Establishments
32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development

1994 Report of the Auditor General of Canada to the House of Commons

Table of Contents (cont'd)

Volume	Chapter	
7	12	Aspects of Federal Real Property Management
8	13	Federal Management of the Food Safety System
9	14	Agriculture and Agri-Food Canada – Farm Income Protection
10	15	Atomic Energy Control Board – Canada's Nuclear Regulator
11	16	Correctional Services Canada – Custody of Inmates
	17	National Parole Board
	18	Correctional Services Canada – Supervision of Released Offenders
12	19	Environment Canada – Environmental Partners Fund
	20	Environment Canada – Ice Services
13	21	Foreign Affairs and International Trade Canada – Technical Assistance Contributions to Central and Eastern Europe and the Former Soviet Union
	22	Foreign Affairs and International Trade Canada – Financial Management and Control
14	23	Indian and Northern Affairs Canada – Social Assistance
15	24	National Defence – Defence Management Systems
	25	National Defence – Information Technology
	26	National Defence – Infrastructure Reductions
	27	National Defence – Infrastructure Management
16	28	Revenue Canada – Customs Assessment Activities
	29	Revenue Canada – Collecting Income Tax Debts
	30	Revenue Canada – Goods and Services Tax: Audit and Special Investigations
	31	Revenue Canada – Ensuring Fairness of the Income Tax System: Detection of Non-Filers and Special Investigations
	32	Department of Finance and Revenue Canada – Income Tax Incentives for Research and Development
	33	Department of Finance and Revenue Canada – Tax Assistance for Retirement Savings
17	34	Public Works and Government Services Canada – Management and Operation of Crown-owned Office Buildings

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